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ABSTRACT

In order to identify the major problems relating to resource organization, provision, and information in Scottish primary and secondary schools, interviews were conducted with 200 teachers in unpromoted posts in schools throughout Scotland and the results of these interviews were tabulated and analyzed. The interview sample was random but stratified by type of school (primary versus secondary), sex of the teachers, educational region within Scotland, and, for primary schools only, the size of enrollment. A uniform interview schedule was used to conduct the interviews, which were conducted between May 1978 and April 1979 by the project Research Officer. The interview schedule solicited teacher opinions in four major areas: (1) resources available to teachers within their own schools, (2) resources available to teachers outside their own schools, (3) procedures relating to the acquisition and use of resources within the teachers' schools, and (4) teachers' use of audiovisual equipment. Results in each of these topic areas are presented and analyzed in detail, and a series of low-cost recommendations for the improvement of the educational resources system is made. Details on the sample group of teachers, the interview schedule, 76 tables summarizing survey data, and a selection of teachers' comments are appended. (JL)

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TEACHERS AND RESOURCES

THE VIEWS OF 200 UNPROMOTED TEACHERS

DAVID D. HAMILTON

IR009938

SCET

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Teachers and Resources:

The views of 200 unpromoted teachers.

Foreword

This book is the second of three publications arising from the Resource Liaison Project after some preliminary work in 1977. The research for the project was carried out by David D. Hamilton, the author of this report, under the guidance of a Steering Group.

Inevitably research of this scale takes time and some of the detail contained in a report will be out of date by the time of publication. This is so with this document. It should be noted that the four Scottish Curriculum Development Centres have undergone some re-organisation since the research was conducted and are all now carrying a wider subject remit. Nor was the Primary Education Support Service included as a Curriculum Development Centre for the purpose of this survey its functional role being somewhat different from the other national centres. And the SCET "Index of Broadcast Resources" was changed in format and distribution during the course of this project and its publication has now been terminated.

The reader is asked to bear in mind that the interviews were conducted with *unpromoted* teachers and it is the views of these people on which this report is based. SCET is well aware that most communications from support agencies and commercial companies are received by teachers in promoted posts. It was therefore considered important to examine the knowledge and views of teachers who would not normally be expected to receive direct communication. SCET is also aware that any set of statistics can be analysed in many different ways and (it may be that this report does not draw out all of the significant inferences from the available data and that further work is required.) Then our data can be made available to anybody or individual who might wish to conduct further research in this field.

Finally SCET, though funding this project, would point out that this report is that of the author and it does not necessarily express the views of the Council. Nonetheless the Council will be considering the conclusions and recommendations of this project, together with other documents, with a view to future action.

SCET gives its sincere thanks to all those Directors of Education who gave their permission for interviews to be conducted in schools within their authority and to all the Head Teachers involved who permitted the researcher to conduct his interviews with their teaching staff. We are most grateful to them for their co-operation.

R. B. Macluskie, Director
Scottish Council for Educational Technology

PREFACE

This book is based upon a research report written in late 1979 following work done in the previous eighteen months. The "work" consisted mainly of interviews with two hundred teachers in unpromoted posts in primary and secondary schools throughout Scotland. The teachers were asked what problems they had experienced in finding out information about the availability and the range of learning resources for use in schools and what difficulties they had had in obtaining and using the resources of their choice. In this document their views and their opinions are detailed and discussed; and the final chapter contains a series of low-cost recommendations designed to improve a system presently not seen as satisfactory by many of the teachers to whom we talked.

I should like to acknowledge with gratitude the co-operation given me in this research by various groups: the Scottish Council for Educational Technology for its aid and support; the regional and island area authorities and the head teachers who permitted me to enter their schools; my steering group which offered advice and constant encouragement; and the teachers in our sample who gave generously of their time and thoughts.

I am similarly indebted to a number of individuals: to Martyn Roebuck, HMI, and Richard N. Tucker, Scottish Council for Educational Technology, who read and factually commented upon the first drafts of this report; to Alan McGregor, Department of Social and Economic Research, University of Glasgow, for his assistance and work in the computer analysis of the data from the interviews with the teachers; to Leontia Divers, St. Ambrose High School, Coatbridge, Dr Kenneth D. MacTaggart, Technology Policy Unit, University of Aston in Birmingham, and Robert W. Rowatt, Scottish Council for Educational Technology, for their help in interviewing; and to Ann Drummond who deciphered my handwriting to produce a neat and well-typed document.

One final point. Much of what is written in the social sciences, and, therefore, in education, is little more than value judgements. That is a comment, it is not a criticism. It is only what one would expect. However, it does appear to me that a lot of what is published in education masquerades under the description of "knowledge" when all that it is, in fact, is a series of value judgements which are often merely asserted and seldom argued. Wherever possible, values should be related to facts. In this report I have tried to do this to the best of my ability. Whether the facts are as indeed they were presented to me is another matter for the pursuit of Truth is a puzzling and tortuous journey as Pilate knew. I have asked questions and accepted the answers offered as honestly given. If there are errors and mistakes within this document, they have been made in innocence. It would, of course, have been possible to ask colleagues who are experts in the fields surveyed to edit and evaluate the various chapters. I am sure that I should have learned much from their thoughts, but the book would then have turned into a committee report rather than a personal assessment which is what it is despite the use for reasons of convention of the first person plural. I have, therefore, thought it best to let the work stand with all its omissions and idiosyncracies as the appraisal and analysis of one research worker of resources and teachers in Scottish primary and secondary schools.

David D. Hamilton
Glasgow, 21st September 1980

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CHAPTER ONE

Origins, Aims and Procedure

1.1 *Origins.* The origins of this research lie in discussions which took place within the Educational Technology Committee of the Scottish Council for Educational Technology at its meeting in September 1976. There, prompted by suggestions made by D.C. Butts, Head of the Audio-Visual Media Department, Jordanhill College of Education, Glasgow, a working party was set up to identify the major problems relating to resource organisation, provision and information in Scottish primary and secondary schools.

1.2 *Aims.* This group, convened by Douglas Mennie, Resources Development Officer, Department of Education, Grampian Region, met on three occasions between October 1976 and April 1977. It identified three major issues within this area. Firstly, little appeared to be known about how far the movement towards resources centres in Scottish primary and secondary schools had progressed. Most regions could quote one or two, sometimes as many as 20 examples of schools with resources centres, but no detailed information was available about which schools had such centres, what kind of internal organisation they had etc. This lack of knowledge was regarded as a serious deficiency which should be remedied, if at all possible. Secondly, although within many of the regions there was at least one teachers' or resources centre serving the schools in the area, again, in a number of instances, little was known about them. Where were all the centres? Did the regional centres provide both software and hardware? Did they all hold materials for both the primary and the secondary sector? Were there areas, geographic and/or curricular, which "missed out"? Thirdly, it was discovered that no survey had been undertaken within the British educational systems to find out the needs and difficulties of classroom teachers who wanted to make use of resources, both book and non-book. Clearly, the teachers' problems and opinions were central to the whole issue under investigation. Did they make as much use of resources as they wished? If not, why not? Was it because they were not aware of what was available to them within and without their own schools? Or was it because at the school and regional levels the resources centres did not have material suitable? Or were there other reasons? It was obviously essential to find out the teachers' views.

1.3 Accordingly, the working party returned to its parent group in May 1977 and submitted its findings. In essence these were that the Council should undertake an investigation into the organisation and use of resources provided by the regional education authorities for primary and secondary schools in Scotland. It further proposed that an independent Research Officer be appointed to carry out the work and that it, the working party, should remain in existence to guide and oversee the inquiry. These recommendations were accepted by the Educational Technology Committee and the result was that the Resource Liaison Project began in September 1977. Accordingly, the working party's name was altered to that of "steering group". With the change in name also came a change in the Chairman, James S. Meldrum, former Director of Education, Stirlingshire, succeeding Douglas Mennie. The membership of this committee is given in Appendix A.

1.4 After two and a half years' research the Final Report on the Resource Liaison Project was submitted to the Council in March of 1980. Not surprisingly it was a lengthy document — around 130,000 words. It was then decided that in order that the findings be brought to a wider audience the report should be revised and divided into its three main component parts which would then be published separately. Accordingly, three publications have been prepared from the original report: "School Resources Centres in Scotland" which is an analysis of a survey of the primary and secondary schools considered to have resources centres[1]; "Regional Resources for Scottish Schools" which contains a description of the resources made available to teachers by the regional education authorities[2]; and this document which looks at the teachers' perception of their own needs and difficulties in finding out information about resources and in using them.

1.5 At this juncture it is also worth noting that there was one further aspect to the project — the preparation of a booklet which provided guidelines on where teachers could obtain information on the range of resources available to them and how they would obtain these materials, once a choice had been made. This task was not regarded as the responsibility of the Research Officer but was undertaken by the Steering Group as a whole, and in the autumn of 1978 "Sources and Resources: A Guide for Scottish Schools" appeared.[3] The publication gave detailed advice to the teacher and copies were sent to all the Scottish education authorities and many schools. It is still available, free of charge, from the Council's offices.

1.6 This book is concerned solely with the analysis of interviews conducted with teachers in order to identify their needs and problems in Scottish primary and secondary schools in terms of (a) finding out information about the

range and availability of resources for learning and (b) obtaining the resources of their choice. Readers who are interested in other aspects of this project, i.e., regional resources available to teachers and school resources centres, should refer to the documents mentioned in paragraph 1.4.

1.7 *Procedure.* **It must be stressed that what we surveyed were the teachers' perceptions of the way things were and their difficulties. These may differ from the truth. That does not, however, mean that we believe that some of the teachers to whom we talked were deliberately misleading in their replies. Rather we acknowledge that because one teacher reported that there was no VCR in the school, it does not therefore follow that the school had no VCR. This research is based upon perceptions and opinions. These may reflect the truth. They may not. They are, however, real and frequently firmly held. Because of this they have existence, importance and consequences. This caveat should be kept in mind for the remainder of this book.**

1.8 Resources in the end are there for the teachers. What were their views? What difficulties did they experience? What were their needs? It was decided that a survey must be undertaken to discover the answer to these questions and that the data-gathering method used would be the structured interview. This instrument was chosen because it was more likely that the kind of information being sought would be disclosed in an interview situation rather than on to paper on a mail questionnaire, which had the further disadvantage that it would have to be very lengthy and would be in danger of being thrown into the waste-paper basket by even the most co-operative of teachers. A structured format created consistency and facilitated analysis while, at the same time, the inclusion of open-ended questions permitted the respondents to give full rein to their own opinions.

1.9 The interview sample was drawn from the whole of Scotland and numbered 200 teachers, *all of whom — bar five — were in unpromoted posts and were in different schools.* This figure, determined as usual by the constraints of time and money, was sufficiently large to enable statistical conclusions to be drawn in relative safety about the population as a whole. The sample was random, but was stratified in a number of ways: the ratio of primary to secondary schools was 1:1; the teachers in both the primary and secondary schools were stratified according to sex to reflect the national figures (in the secondary schools for a variety of reasons it was not possible to do this exactly, and the stratification is 4% out in favour of the male); the primary schools were also stratified into those with rolls of less that 221 pupils and the remainder; it was further stratified by three specific groupings of the seventeen educational regions in the country. The reason for the first three stratifications was that it was important to ensure that the sample reflected the population, i.e., all the education authority schools, but not the grant-aided or private establishments. The fourth stratification was decided upon because it seemed possible that teachers in those regions which had an "Adviser in Educational Technology"[4] might differ in their knowledge and views from their colleagues in those areas where no such Advisers existed. Accordingly, the split was made with the three groups representing: — (a) the Strathclyde divisions with an "Adviser in Educational Technology", (b) the other regions which had such an "Adviser" and, (c) those regions and divisions without an "Adviser in Educational Technology". Three clusters were kept rather than two, in order to ensure that the sample adequately represented the number of schools from the massive Strathclyde Region.

1.10 It was, however, not possible to choose teachers' names according to these stratifications. Therefore, what was selected by the computer were the schools. Each school was then contacted and asked to provide a list of teachers and from these an individual was selected at random. An attempt was made to stratify further at this stage into age groups taught in the case of the primary school teachers and into subject areas taught in the case of the secondary school teachers. However, as can be seen from Appendix B, this was not entirely successful. The main reasons for this were that many of the primary teachers taught more than one age group and many of the secondary teachers taught more than one subject. Nevertheless, although it would be incorrect to say that the teachers were strictly stratified according to age group taught and subject area taught, those who were interviewed do represent a fair scatter of the teaching population. However, the sample surveyed was too small to enable conclusions to be drawn about class groups or subject areas.

1.11 Two further points must be stressed. Firstly, all the teachers who took part — with the exception of five people — were in unpromoted posts. This was a deliberate choice since these teachers are the ones who spend most time in the schools teaching children and it was their views that were most important in terms of the project's objectives. Clearly, Principal Teachers, Assistant Head Teachers etc. also have many class-contact hours every week, but it was our belief that the unpromoted teachers, because of their timetable commitments to the pupils, would be the most valuable source of information in order to establish the needs and difficulties facing the teacher in the classroom. However, five of the teachers interviewed were Head Teachers, but they were Head Teachers in single-teacher schools, i.e., they were the only teachers at their schools. These schools had been chosen by the computer according to the stratifications instructions mentioned earlier in this chapter and, in order to maintain the balanced representation of the differing types of Scottish primary schools, they remained in the sample surveyed.

1.12 Secondly, for the benefit of future researchers, it must be recorded that access to a particular teacher in this kind of research can take a considerable time. There is a set procedure to follow. Once you have decided that you want to speak with someone in school Y, permission to approach that school has to be sought from the Directorate giving full details of your research project. Once permission has been granted, you must then write to the Head Teacher of school Y requesting authorisation to talk with a teacher from Department X — and, at this stage, information about the project again would be given — and asking for a list of the teachers in Department X to be forwarded in order that a random selection be made. If the experience of this research is anything to go by, you may find that the Head Teacher, perhaps for the noblest of reasons, tries to guide you towards a particular teacher.

However, if the sample is to be random, such guidance must be politely declined. Also, it is useful to mention in the letter to the Head Teacher that the Director of Education knows that the school is being contacted and has given permission for this to be done. If the Head Teacher agrees, then direct correspondence with the teacher chosen for the interview is all that remains. In this project this procedure took a minimum of six weeks, and in the case of two regions took as long as three months — and this despite telephone calls attempting to expedite matters. It is quite possible that steps in this process can be omitted, but this is not recommended for a variety of reasons, not the least of which are the maintenance of manners and the need to ensure the continuing goodwill of the education authorities towards researchers and their surveys.

1.13 The interview schedule which was administered to the teachers had five sections. The reader may study it in Appendix C. Section One concentrated entirely on biographical detail. Most of this kind of factual information could have been omitted or obtained from records, but it was included, in part, in order to help the building of a rapport between the interviewer and the respondent, something that was vital since the interviews normally lasted about one hour and enquired closely into teaching habits and opinions. Section Two was devoted to the resources available to teachers in their own schools. It concentrated on the use of software, the teachers' awareness of what was held in the schools and what difficulties they had experienced within their own schools. Section Three asked about resources available outwith the schools. It sought to establish how much the teacher knew about central resources centres, what contacts — if any — they had with such centres and their opinions of these organisations. Section Four enquired about the procedures adopted within the schools relating to the ordering of new resources and asked the teachers' views on what already was available. The final section, Section Five, examined the teachers' attitudes to audio-visual equipment, both in terms of the training they had received at their colleges of education and at any in-service courses which they had attended and also in terms of the use which they made, or did not make, of audio-visual aids in their schools.

1.14 The interview schedule was piloted in eighteen schools throughout Scotland during April 1978. The sample of 200 teachers was interviewed between May 1978 and April 1979. Most of the interviewing was done by the Research Officer. This explains the length of time taken to conduct the interviews, but the fact that 189 of the interviews were administered by the same person did contribute to consistency. Of the 200 schools originally selected to take part in the survey, 20 withdrew. Replacements were found which maintained the statifications demanded.

1.15 *Comment.* One of the major problems in this piece of research was the absence of readily available information. Little work has been done in investigating the problems and difficulties of teachers in finding out information about resources and in using the resources of their choice. The general aim of this survey was to discover how aware the teachers were of what was available to them and how great a need there was, in their opinion, for alteration and change. Chapters Two, Three, Four and Five detail and discuss the responses. These four sections have been so divided as to fall into well-defined areas — resources within the schools, resources outwith the schools, ordering procedures in the schools, and training in audio-visual techniques. In the final chapter, Chapter Six, the findings are brought together and linked in a series of conclusions and recommendations for change.

1. D.D. Hamilton and R.N. Tucker, *School Resources Centres in Scotland* (Glasgow: Scottish Council for Educational Technology, 1981).
2. D.D. Hamilton, *Regional Resources for Scottish Schools* (Glasgow: Scottish Council for Educational Technology, 1980).
3. *Sources and Resources: A Guide for Scottish Schools* (Glasgow: Scottish Council for Educational Technology, 1978).
4. By the term "Adviser in Educational Technology" we mean somebody who holds the official responsibility for this task whatever his actual title might be, e.g., Audio-Visual Adviser, Resource Co-ordinator.

CHAPTER TWO

Within the Schools

2.1 *Introduction.* In this chapter we discuss the responses of the teachers in general to the questions posed during the part of the interview which related to what was available to them in terms of resources *within their own schools.* It must be remembered that what was being surveyed throughout this research was the teachers' awareness and perception of what was there to help them.

2.2 As explained in Chapter One, 200 teachers, 100 of whom were from primary schools and 100 from secondary schools, were interviewed, all but five being in unpromoted posts. These five all were primary teachers in single-teacher schools. We found it impossible to stratify strictly the interviewees according to age groups taught (primaries) or subject areas taught (secondaries). The main reason for this failure was either that so many teachers were working with more than one age group, e.g., with P3-P5 children, or that teachers had classes in more than one subject, e.g., English and History. However, in the sample of the 100 primary schools surveyed, 22 teachers had P7 pupils while 43 teachers taught P3 pupils. The number of teachers interviewed who worked with the remaining five age groups in the primaries was in between these two figures, i.e., between 22 and 43. In the secondary sample the subject areas were divided into six groups, these being English, Languages, Mathematics, Science, Social Subjects, and the remainder which included Art, Music, Religious Education and Technical Education. The first four subject areas mentioned each supplied 18 teachers; there were 28 interviewees engaged in teaching Social Subjects; and a total of 21 men and women were surveyed who taught "other subjects". Obviously, for neither the primaries nor the secondaries do these figures add up to 100. They exceed that number. The reason for this has already been given, namely that many teachers taught more than one age group or more than one subject area. The age range of the teachers interviewed varied from 22 years to 65 years, the figures for the mean being 35.1 and for the standard deviation 11.5.

2.3 Major interest in our examination of the data has centred upon four controlling variables, these being two "structural" factors, namely, the type of school, i.e., primary or secondary, and the region in which the teacher worked, and two "individual" factors, the sex of the teacher and the length of time he (or she) had been teaching. N.B., although the adjective "controlling" has been used to describe these variables, its meaning is purely statistical; it does not imply a cause and effect. The reasons that we decided upon these four factors are given in detail in the succeeding paragraphs. We did not examine any other variables, e.g., the age of the teacher, the length of time he (or she) had worked at their present school, because of restrictions imposed by lack of time and lack of money.

2.4 *Type of school.* Initially, we looked at the responses against the background of the type of school, for it was anticipated that what the primary teachers had to say would be somewhat different from their secondary colleagues. This was expected for a variety of reasons, e.g., most primaries have smaller rolls than secondaries, in the primary schools there are fewer teachers than in the secondaries, in the primaries as opposed to the secondaries the departmental divisions which exist are not so clearly marked etc. The majority of the tables which are discussed herein and which are available for consultation in Appendix D refer to the type of school.

2.5 Having looked at the replies of the teachers in relation to the primary — secondary division, we then investigated the three remaining controlling variables previously mentioned, i.e., the sex of the teacher, the region in which the teacher worked, the length of time he (or she) had been teaching. In our analysis, we investigated *all* the relationships which seemed to us likely to be of interest. However, for reasons of space and time, and because many of the results obtained are of very limited importance, we concentrate in the report only upon those analyses in which were found *statistically significant differences.* It is acknowledged that tables which show little statistical significance and which, therefore, are not discussed nor detailed in Appendix D may, nevertheless, be of educational importance.[1]

2.6 *Sex of teacher.* It was considered important to look at the responses of the teachers in relation to their sex for a number of reasons. Firstly, as is clear from Table 1, it is quite possible that any findings relating to differences between primary and secondary schools might be explained by the sex difference, since only 11.0% of the primary teachers interviewed were male. This percentage was selected deliberately to reflect the national picture[2], but, nevertheless, the possibility does exist that such sampling might have, in some small way, "skewed" the calculations, since such a small number of male teachers from primary schools was surveyed. Secondly, women constitute the major part of the teaching profession. This is true not only of Scotland but of the world.[3] This state of affairs shows no sign of alteration.[4] It, therefore, was necessary to establish whether there were any marked differences between the sexes in their responses to particular areas of the interview. Thirdly, a great deal of present literature in education and

the social sciences is concerned with the woman's role.[5] It was vital not to ignore this aspect. Therefore, the woman teacher was studied separately from her male colleague.

2.7 *Region in which teacher worked.* It was decided to use the regions as a controlling variable for a number of reasons. Firstly, it was expected that there would be regional variations in the knowledge and views of the teachers. One could hardly anticipate that, as far as resources were concerned, the use, awareness and outlook of a teacher from Stronsay in Orkney would be exactly mirrored by his counterpart in Easterhouse, Glasgow. Secondly, many of the regions in Scotland have "Advisers in Educational Technology" who have helped to establish within their own areas resource organisations and networks designed to cater for the needs of the teachers. It was anticipated that the teachers who worked in such areas would have opinions and experiences somewhat different to those of their colleagues teaching in regions without an Educational Technology Adviser. Accordingly, the regions have been stratified into three parts for the benefit of analysis, the reason being that our sample was too small to look individually at the eight regions, the six Strathclyde divisions and the three island areas. These three areas are: firstly, the five divisions in the Strathclyde Region with "Advisers in Educational Technology", i.e., Ayr, Dunbarton, Glasgow, Lanark and Renfrew, (hereinafter referred to as "Part Strathclyde"); secondly, the remaining Scottish regions with "Advisers in Educational Technology", i.e., Central, Fife, Grampian, Lothian and Tayside, (hereinafter referred to as the "Ed. Tech. area"); and thirdly, the other areas, i.e., the Argyll and Bute Division of Strathclyde Region, the regions of Borders, Dumfries and Galloway, and Highland, and the island areas of Orkney, Shetland and the Western Isles, none of which has such an Adviser (hereinafter referred to as the "non Ed. Tech. area"). Table 2 provides basic information about the cell figures for each of the stratified areas.

2.8 *Length of time teacher had been teaching.* There were several reasons for using this as a controlling variable. It seemed possible that the less experienced the teacher, the less likely her (or she) might be to use audio-visual aids, since there are obviously more basic problems that might be found in the initial teaching years. On the other hand, it could be that a teacher, fresh out of college and acquainted with new methods, might be more varied and adventurous in approach. It was also thought that a teacher, who had been working for some years, would be more aware of what was available in terms of resources within and without the schools. However, it might be that the older teacher had not kept abreast of the latest developments and did not have the detailed knowledge of the resources organisations which have mushroomed in the country over the last decade. Accordingly, teachers were divided into three groups: — firstly, those between their first and fifth years in teaching (hereinafter referred to as "Group One"); secondly, those between their sixth and tenth years (hereinafter referred to as "Group Two"); and lastly, those in their eleventh year and beyond in teaching (hereinafter referred to as "Group Three"). We then tested the responses of the sample against these groupings. Table 3 gives details of the number of teachers in each of the groups.

2.9 *Comment.* All data has been presented both as whole numbers and as percentages. Frequently, the percentages given have been adjusted, the "not known" and "not applicable" categories having been omitted in the calculation of the percentages. When this has been done, it is so indicated. It should also be noted that the percentage figures for primary and secondary teachers have been kept separate in all the tables and have not been combined except on the isolated occasion in the commentary. The tables are grouped together in Appendix D.

2.10 One of the main problems in looking at the responses of the teachers in relation to the controlling variables used was to decide whether the relationship, although statistically significant, could be in any way causal or of value. For example, could one say that the sex of the teacher affected the availability of certain resources in the school if an analysis revealed a statistical significance between these two factors? The answer to that is that one can not draw such a conclusion. One can not talk of cause and effect but only of a relationship. In the example given one can not conclude that the sex of the teacher affected the availability of the resources in the school. One can only maintain that the sex of the teacher *is related* to the availability. Social science surveys such as this do not provide knowledge. They can merely convert possibilities into probabilities, uncertainties into likelihoods. Knowledge remains within the domain of the philosopher.

2.11 *Resources within the schools.* In this chapter various facets of resource use and organisation within schools are examined through the eyes of the teachers. Throughout no central hypothesis is being tested nor is required to be borne in mind although clearly several assumptions are being checked. What is of particular interest here is the kind of internal organisation which exists within the schools and the teachers' awareness of what is and is not available to them. No attempt has been made to verify the respondents' statements. It is quite possible that the information given was wrong; for example, it may have been the case that epidiascopes were available to many teachers who answered in the negative. However, this possibility of respondent random error which is present in all surveys does not invalidate in any way the project which was an examination of teachers' perceptions and not an enquiry into the actual levels of resource provision and the styles of resource organisation. Furthermore it is acknowledged that there could be also systematic errors, related to the size of school for example, for the teacher in the smaller school may have a higher probability of knowing what is available in terms of resources than his counterpart in a large comprehensive. As it is there has been no check by us on the validity of the data but what, of course, are being surveyed are the teacher's perceptions. *The reader, therefore, should keep in the forefront of his mind that the data and the interpretations reflect the teachers' awareness of what is there in the schools and not necessarily what is (and is not) there.*

2.12 This chapter examines the data provided by the teachers' replies to questions on specific areas: the use and organisation of audio-visual software; the availability and storage of audio-visual hardware; the help given to

teachers with radio recordings; intra-school borrowing of resources; teachers' awareness of the resources available to them; and the existence of formal resources information networks and the teacy opinions of these.

2.13 *Use of audio-visual software.* An attempt was made to establish how much use was made by the teachers of the various different kinds of aids, mainly audio-visual, available to them within their own schools. A fairly comprehensive list was drawn up for this purpose. However, few very definite conclusions can be drawn from the results for statistical reasons and, also, because, as can be seen from Table 4, we have obtained only a general guide to usage. No account has been taken in the table of the availability of the corresponding piece of hardware.

2.14 In many ways the most valuable information gathered lies in the "not known if available" and the "not available" columns. Looking initially at the "not known" results one can see that the vast majority of teachers are aware whether or not there are particular items of software held within their schools. That, of course, does not mean to say that they are, therefore, *fully* aware of what is available. However, in only three instances — when 12 primary teachers did not know if their schools held slides, when 11 secondary teachers were unaware if there was a radio and when ten secondary teachers did not know if their schools possessed film strips of relevance to their teaching area — did more that one in ten of the teachers say that they were ignorant of whether or not the school held a particular piece of software.

2.15 The "not available" responses indicate that, with regard to those items which require to be used with an accompanying piece of audio-visual machinery, fewer primary teachers have available to them visual materials in comparison with the secondary colleagues. e.g., 40 primary teachers have no film strips available to them as opposed to 28 secondary teachers, 93 primary teachers have no video-tapes available as opposed to 13 secondary teachers. The opposite is the case with audio items. Here, for example, 23 secondary teachers do not have audio-cassettes or tapes, whereas this applies to only four primary teachers; 52 secondary teachers have no records as opposed to 16 primary teachers. The reason for this could be simply financial in that video material is more expensive than audio and secondaries have more money than primaries. However, another explanation might be that audio hardware, as Table 24 shows, is in more easy supply in the primary school than is visual hardware. Therefore, the primary teachers select, for purchase, software which they know they can use easily, e.g., audio-cassettes or records, rather that film strips, transparencies etc. which require the use of pieces of equipment which are not so easily available. A further factor might be that the primary teachers prefer audio items because they feel more confident in handling cassette recorders and record players rather than film strip and overhead projectors. This point is discussed further in paragraphs 5.15—5.24. It is also evident that we can say that many teachers believe that their own schools do not hold films which are of use to them. The same can be said of slides, slide-tape or film strip-record combinations and transparencies.

2.16 Looking at usage it must be remembered that Table 4 relates only to software *held* in the school. It is quite possible, and indeed likely, that items may be borrowed by teachers from other educational establishments and from other outside bodies to be used in the classroom. This is obviously the case with films where only one teacher reported that the school had films of its own. In this connection it must be noted that we interviewed 12 teachers in schools in Fife during the survey. They clearly had no video-tapes permanently available to them in their schools. Video-taping in Fife is done centrally and video-*replay* machines are supplied on loan.

2.17 Most primary teachers seem to make frequent use of games (78.7%), "live" radio programmes (59.6%) and worksheets (71.0%). By contrast the available aids which are used rarely or never by the primaries are: — slide-tape or film strip-record combinations (100.0%), transparencies (90.9%), slides (85.2%), film strip (76.4%) and video-tapes (66.7%). The reason for this could simply be that the schools which do have these pieces of software do not have a large selection of these items. This is likely to be so with the expensive purchases, e.g., video-tapes, but another explanation would have to be sought for the transparencies. In the case of the latter, the answer can be found in Table 24, namely that only 15% of the primary teachers have easy access to an overhead projector. Another reason for the very limited use made by the primary teachers of the resources mentioned above could be that the teachers are hesitant to use a slide projector. Kennedy and Duthie also have noted the reluctance of the primary school teacher to use the slide projector.[6] The secondary teachers, on the other hand, are committed to regular use only of worksheets (75.6%) and, to a far lesser extent, of transparencies (37.8%) and audio-cassettes or tapes (38.6%). The items which are only occasionally, if ever, used in the secondary school are: — "live" radio programmes (97.3%), "live" television programmes (92.6%) and records (69.0%). Again, it can be seen from Table 24 that neither the radio nor the television were considered to be the most easily available equipment to the secondary teacher. As for records, it can be assumed that not all the subject areas have a prolific stock of such items which would provide, therefore, a satisfactory reason for their occasional use in schools.

2.18 Primary teacher usage differs quite sharply from secondary on a number of items. *However, as we have already noted, the differences between primary and secondary schools are such that though comparisons are to be made these are not to be read as "like-with-like".* More primary classes than secondary classes watch television "live" (no doubt because so few of the former have the alternative of video-taping), but they also view more often. 91.0% of primary teachers watch programmes with their classes at least once a week. This may be because the school programmes offered by the BBC and ITV are more suitable to the primary school — both in terms of quantity and quality — than to the secondary school. Or it could be that the vast majority of primary schools follow the practice of strict timetabling as regards television viewing so that each class is allocated "X" number of programmes each week at stated times. Duthie remarked upon the heavy use of television (and radio) by primary school teachers which he said was presumably because, although less under the control of the teacher, they required less setting up than other audio-visual aids.[7] Secondary teachers use "live" television rarely. Only 5.3% view "live" programmes once or more each week. This, possibly, is because timetabling does not permit it. However, 16.3% watch video-tapes that often. It

appears that, for whatever reasons, some children watch considerably less television in the secondary schools than in the primaries. The same is true of radio to which the primaries make more frequent use than the secondaries. 59.6% of primary teachers as opposed to 0.0% of secondary teachers listen at least once each week to a "live" radio programme. Again, however, the hardware-availability factor is involved.

2.19 When we examined the use of software in relation to the sex of the teacher we found, as is shown in Table 5, that more audio-cassettes and tapes, games, radios and records were available to female teachers, and that more slides, slide-tape and film strip-record combinations, specimens, transparencies and video-tapes were available to the male teachers. However, once we tested this information with the type of school and at the same time controlled for the sex of the teacher, it became evident that none of the relationships was significant in terms of the gender of the teacher. In other words it would be wrong to conclude that the sex of the teacher is a factor which determines the availability of software and, indeed, also of hardware. The type of school is far more important. The same point can be made with regard to the organisation of audio-visual equipment within the schools.

2.20 In the actual use of software, as opposed to its availability, we analysed to see whether there were significant differences which might be related to the sex of the teacher. As can be seen by comparing Table 5 with Table 4, i.e., use of software by sex of teacher with use of software by type of school, there are marked similarities, firstly, between the findings relating to the female teacher and those relating to the primary school and, secondly, between the results concerning the male teacher and those concerning the secondary school. This applied to almost all the items of software. We then tried to establish whether the type of school or the sex of the teacher was the determinant factor in the use of software. However, a problem arose in that when we considered each item individually we noted that the cell figures in nearly all the cases were low enough to cause the χ^2 figure to be viewed with some suspicion. Having sounded that caveat we did discover, nevertheless, that χ^2 was significant in the case of games and press cuttings. Accordingly, we did further cross tabulations with sex as the single controlling variable but it was impossible to establish with certainty whether use of items was due to type of school or sex of teacher (Tables 6-9).

2.21 Despite the lack of conclusive statistical evidence our belief founded on the data gathered and instanced in Tables 6-9 is that the differences in the use of software by male and female teachers is explained not by the sex factor but by the type of school, primary or secondary, where the teacher works.

2.22 In examining the availability and use of software in relation to the geographic area in which the teacher worked we found little difference in use but statistically significant differences in the availability of four kinds of audio-visual aids (Table 10).

2.23 It is quite clear from Table 10 that visual software is not in as abundant a supply in the non Ed. Tech. area as elsewhere. One is left to speculate as to why this should be so. Tables 25 and 26 show that the non Ed. Tech. area is not as well equipped in terms of hardware as the other two areas. The reason for this could be purely financial in that the regions which constitute this area, perhaps for the best of reasons, do not spend comparable amounts on resources. It could be that the existence of an "Adviser in Educational Technology" and a concomitant regional commitment to a central resource organisation (with back-up services) and to resource provision generally may well help to explain these results.

2.24 The figures indicating the use of other items of software (they are not tabled here) show few major differences between the three areas — with one exception, worksheets (Table 11). It certainly is the case that in the non Ed. Tech. area the teachers tend to make less frequent use of some items — but this could be because of hardware shortages. This applies particularly to visual items. Why teachers should not be using worksheets in the non Ed. Tech. area as much as elsewhere is uncertain. Again one can only hypothesise without supporting, let alone conclusive, data to sustain one's claim. It may have something to do with the size of school. The teachers in the smaller schools (and they are more numerous in the Ed. Tech. area) are able perhaps to have more direct communication with pupils than their colleagues in the larger schools with big classes where the teacher is forced possibly to rely more on written instructions. It might be that worksheets (or "response sheets" as they now seem to be called) are more fashionable in the urban areas and have not yet spread in such profusion to the outlying areas. It must also be noted that the emphasis on the heuristic method of learning, which is the philosophical basis of resources centres and resource organisation, is likely to be greater in those areas with an "Adviser in Educational Technology". This would help to explain the heavy reliance on worksheets in those regions. With a worksheet, children are left to discover for themselves. Certainly worksheets are in frequent use in most classrooms. For the purposes of our survey, however, it is worth noting that they are not in as frequent use in the non Ed. Tech. area. The figures in Table 11 illustrate these findings.

2.25 Finally in this section surveying the availability and use of software we examined the use of software in relation to length of teaching experience. However, we did not examine the availability of items with this variable as we do not believe the findings would be of any significant value.

2.26 It seemed probable that there would be a difference in the use of some items of software in relation to the experience of the teacher. Older teachers who had attended teacher training college when many of the items of audio-visual equipment in schools today were not available might be hesitant to make use of certain pieces of hardware. Therefore, we analysed for this and the results which showed any statistical significance at all are given in Tables 12-16. However, it must be stressed that although the relationships in all the quoted examples are statistically significant. the cell figures once again are low and, therefore, categorical statements based on these findings cannot be made.

2.27 It is clear that, the more experienced the teachers are, the more frequently they are prepared to use "live" radio and television programmes (Tables 13 and 15). Why this should be so is not known. One would hesitate to

maintain that it could be because the use of these media can demand little more of the teacher than throwing a switch, but that must be a possibility. It could be, of course, that the experienced teacher is better acquainted with the educational broadcasts of the BBC and ITA than the newcomer and, therefore, knows which programmes are suitable for certain classes and which are not. It could also be that, since such programmes are, to an extent, beyond the control of the teacher in that the teacher cannot dictate the contents, the younger teacher with a possible fear of the unknown and uncertain about discipline etc. opts for the "safer" course of a structured, personally-taught lesson more often. The older teacher seems less likely to be of this opinion.

2.28 It appears that the less experienced the teachers are the more prepared they are to use worksheets regularly (Table 16). The reason for this may be that emphasis on this aid is relatively recent and the older teacher may not be as convinced of its value and may believe that it is no more than a passing fashion and an occasional help. It is also worth noting that film strips and transparencies are used most frequently by the younger teachers (Tables 12 and 14). This may be partly explained by the teachers' confidence in handling the appropriate items of hardware, but the theory will not suffice on its own, since there is little difference between the groups in their use of slides and tape-slide and film strip-record combinations, which also require the operation of a projector. One rather mystifying set of figures appears for Group Two in Table 14. We can offer no reason that seems satisfactory to us why teachers of six to ten years' experience should make so little use of the overhead projector and transparencies.

2.29 *Organisation of non-book resources.* The ways by which the non-book resources within schools are stored can effect the teachers' attitude to them and the use made of them. We were interested in how many schools held resources centrally and/or departmentally and how the teacher had learned where the resources were. Tables 17-23 detail the differing types of resource storage systems employed in the schools. All these tables relate to only those non-book resources which are school-owned and are available to the teachers interviewed. However, it is, of course, possible that the central or departmental stores house both book and non-book items. What is of major interest is to see how many schools have central or departmental resources bases; and in how many of the schools the teachers keep the resources themselves.

2.30 Perhaps the first point to clarify is that we did not define in our interviews with the teachers what we meant by "a central or departmental store". We left it up to the individual to decide and, accordingly, their interpretation of these terms could differ.

2.31 It is evident from Table 17 that primary schools are over three times more likely to have central stores than secondaries. 53.0% primaries answered in the positive as opposed to 16.0% secondaries. Why should this be so? Obviously the size of the school, primaries are smaller as a rule, is a factor to be considered. Also, it is reasonable to assume that there are, therefore, less non-book resources in a average primary school than in its secondary counterpart. Table 17 supports this assumption. Accordingly, it would be easier to organise a central base in a primary than in a secondary. Further, there is not the strong sense of departmental identity in the primary which exists in the secondary with its strict subject demarcations, and the absence of this would facilitate the establishment of a central store. It may also be the case that, with the decline in the roll of most primary schools, more space has become available for this type of organisation.

2.32 One remarkable figure which emerges is the number of teachers, 20.3%, who were informed by a *non-teaching colleague* of the existence of the central store (Table 18). This person was nearly always identified by the teacher as an auxiliary or a janitor. It is, of course, the case in some primaries that the auxiliary is responsible for the day-to-day running of the central store. Nevertheless, it is somewhat of a surprise to learn that the dissemination of information is also her responsibility and not that of the Head Teacher or a Principal Teacher. This finding also throws a new light on the old saying — "never mind about the Head, it's the jannie who runs this school". It may, indeed, be the case that in some schools, particularly primaries, the work, unofficial or otherwise, of the janitors includes the responsibility for the central store. This is the sort of information that might delight union officials of NUPE but may disturb education officers. It is worth recording the comments of one primary teacher in this regard.

> *Without the jannie we'd all be lost here. He's the one who minds the store. He's the one who carries the OHP, the slide projector, the cine and the screen. He's the one who's shown us how to operate it all. And he's the one who fixes things when the bulbs explode or the film snaps or whatever. If he wasn't so helpful and willing and skilled we'd be in real trouble . . . I hope he doesn't leave.*

It is noteworthy, too, that 10.1% of the teachers were not informed by anyone how the non-book resources in their schools were organised but discovered this for themselves.

2.33 When we asked about departmental arrangement we found that less than one in ten primary schools have departmental stores, whereas almost seven out of ten secondary schools do have this kind of organisation. (Table 19). This might have been expected following the results of Table 17 which related to central stores. Clearly the departmental divisions of the secondary do not exist to the same extent in the primary where there tends only to be the Infant Section (P1 and P2 or P1, P2 and P3) and the rest of the school. Departmental storage of non-book resources is far more popular than central storage in secondaries. It may be explained by convenience, by past practice or by the placement of departments in the secondary buildings.

2.34 The small number of departmental stores in the primaries makes the figures relating to who told the teachers about the existence of these stores barely worth bothering about (Table 20). As we would expect, the vast majority of teachers in the secondaries (72.5%) learn about the departmental storage of software from their Head of Department, which is the way it should be. This kind of statistic can do nothing but commend the work of principal teachers. But as with the central store — please refer to Table 18 — a relatively high percentage of teachers, 15.4%,

learned about the existence of the departmental store from a non-teacher, and as many as 10.3% found out about it themselves.

2.35 Departmental and central holdings, of course, are not the only methods of organising resources in schools. Accordingly, we looked at methods of storing non-book items other than in central and departmental stores in order to ascertain the extent to which resources are kept within individual classrooms (Table 21). An important factor to be borne in mind in this regard is the size, layout and type of the school. This, we believe, to be a significant influence in the organisation of resources although we are unable from this survey to provide supportive data for that view. What we did find statistically was that despite the fact that 53.0% of the primary school teachers worked in schools which had a central store (see Table 17), 82% of them acknowledged that they held non-book resources owned by the school in their classroom on a permanent basis. Provided the school has available a central list or catalogue of all its holdings, this system would cause few problems. However, where no central catalogue exists then the possibility arises that teachers will not know what is available to them within their own schools. Similarly, 62.0% of secondary teachers have indicated that they keep non-book materials within their own rooms, when 69.0% of them also have a departmental store for such holdings (see Table 19). Obviously, it is far more convenient to the teachers to be able to reach into their own cupboards to get what they want rather than have to walk down a flight of stairs to a departmental store or to go over to another building to the central store. But the keeping of software within one's own classroom, although not necessarily "hoarding", can result in other teachers being deprived, even although they are unaware of their deprivation. A compromise, sensible yet sustaining the "status quo", is a list or catalogue.

2.36 We did not examine to see if there was any relationship between the organisation of software and two of the remaining variables, namely, the sex of the teacher and the length of time in teaching. We did not consider it educationally worthwhile so to do since these factors could have little influence upon the method of storage. However, we did analyse to determine if there were any regional differences and we noted interesting variations in the storage methods adopted in the different areas (Tables 22 and 23).

2.37 We found that not as many schools in the non Ed. Tech. area have central or departmental stores as those in the other two areas. Why should this be so? One can only speculate on this. Clearly the absence of any data about school layout, size and type weakens our contentions but it seems to us likely, especially in the light of the findings contained in Table 10, that these schools may not have as much software, certainly not as much visual software, as the schools elsewhere. Therefore, there would not be as many items to organise. Therefore, it might be felt that there is not so great a need for central or departmental stores. Also, the non Ed. Tech. area has smaller schools in terms of pupil roll and staff and, accordingly, it is perhaps believed that *formal* resource organisation is unnecessary. However, another explanation could be that the gospel of the educational technologist — in which resource organisation has a place near the high altar — has had an effect upon the schools in those districts where an "Adviser in Educational Technology" has worked and is still working. Casual conversations, formal meetings, schools' conferences, regional in-service courses, may all have offered the "Adviser" the opportunity to proselytise. Adherents and disciples are likely to have been found, and the difference in the storage methods used for non-book resources between those areas with such an "Adviser" and those without this post may thus reflect in part the work of these men and the organisational structures within the regions which they have helped to establish.

2.38 *Teachers' comments on borrowing from central and departmental stores.* The majority of teachers were in favour of storing resources either centrally or departmentally. However, it was acknowledged that the creation of a store did not alone solve all the problems. The main complaint seemed to be, as one teacher said, that:—

> *You may still never know where everything is — even if there is a catalogue. You know that what you're looking for does exist but if it's not there it means going the rounds of the other teachers to see if they have it. And in our school they're not always teaching in the same room so you're not sure where they are. And two of them teach English as well and it's in another block and that means crossing the playground and it may be pouring. So you don't bother. You just plan without whatever it was you first thought of. Is that being lazy?*

One apparent solution would be a simplified booking system — even if it was only a jotter and you entered who took what, when, and when returned — but in many schools this has been tried and found wanting.

> *None of us use the book now. At first we tried but then you're in a hurry, the class is "creating" and so you just grab what you want and rush back. You mean to record it later, but instead you just leave the tape on your desk and at the end of the day, sometimes the week, it's still there.*

2.39 Another frequent comment was upon the absence of a list or catalogue detailing everything that is held in the store. Few schools do keep a record of what is available and this creates problems for the new teacher. The reason given most often for the absence of a list was "lack of time". It was common for a teacher talking of a departmental store to say that at the beginning of the winter term, in the two or three days before the pupils returned, a start was made on cataloguing all the departmental holdings but the task was never completed because the children returned and teaching duties became paramount.

> *We started on a list for the department twice, y'know. A couple of years ago John, the Principal Teacher, asked us to prepare a list of all we had in our room, books and all. But we never had the time. We discovered we had so much and the kids were always there. We just had to give up. We tried again when we came back from the summer break this August. This time we got bogged down on how it should be written up. No one knew anything about cataloguing or classification or Dewey or whatever. We talked a lot and did less. Then the kids came back. We needed help from a librarian and we haven't got one. We won't get it done ever, otherwise.*

Despite this there is little doubt that teachers do regard the listing of holdings as a priority and as a necessity to ensure the efficient working of any resource base.

2.40 One further criticism that was voiced was difficulty of access to the store. Not many secondary teachers raised this issue in relation to their central store, the reason being that in the secondary school the central store was nearly always manned by the librarian, it being part of the library, or by an auxiliary or technician. However, not a few secondary teachers, talking of departmental stores, and a sizeable number of primary teachers, referring to central stores, did stress this point. With the secondary teacher the problem was usually that the store was within another's classroom, more often than not the Principal Teacher's base. Therefore, unless the resources were borrowed at the changeover of classes, to use the store meant interrupting a lesson. This was something most secondary teachers were reluctant to do even if it involved no more than walking through a classroom.

> *I don't like people coming into my room when I'm teaching. It's my room for a start. It disturbs the kids. It can break up — albeit temporarily — the lesson. Then you've got to get whatever you came in for out. That can be a task if it's thirty books. I just don't like doing it. And I know she (the Principal Teacher in whose room the store is) doesn't like us waltzing in, either.*

The primary teachers, on the other hand, complained that the central store was often locked and the key was not readily to hand. This meant a search for the auxiliary, janitor or Head Teacher. The first two apparently can often be as elusive as the Holy Grail and many primary teachers seem as reluctant to contact the Head Teacher as their secondary counterparts are to traverse the floors of the Principal Teacher's room when a lesson is in progress. For reasons of security, presumably, keys to the central store seem not to be issued to all the teachers. Nor is there a place from where the key can be picked up and to where it can be returned after use.

> *In this school, if it moves, it disappears. Books, we lose them daily. TVs, we've had them "nicked". We've had a video set, as well, disappear. We're under siege here. The last outpost of civilisation. The kids don't call the place "Fort Apache" for nothing. Everything's under lock and key always. Resources here are like the gold in Fort Knox. Y'know they're there but the security system ensures you'll never get at them.*

2.41 *Availability of audio-visual hardware.* Clearly the use of any audio-visual software by the teacher is dependent upon the availability in the school of the concomitant piece of hardware. It's no use having a video-tape without a VTR, a set of transparencies without an OHP etc. Therefore, our interview sought to discover how easily available in the schools were the major pieces of audio-visual hardware. Obviously the extent to which these items are used in the classroom is determined in large part by their ease of availability. Of particular interest was the lack of knowledge in relation to availibility displayed by the teachers. Also, it was anticipated that the less costly equipment, such as the radio and the record player, would be more easily available to primary teachers, but that other pieces of a more expensive nature, e.g., cine projector, video recorder, would be available to many more secondary teachers than primary.

2.42 We found that teachers in primary schools are more aware of what equipment is available to them in their schools than their secondary colleagues (Table 24). This is true for every piece of equipment with the exception of the three different types of projector. We can only speculate, at present, as to why this should be so. It could be explained by the differing size of the types of schools; or it may be that primary teachers seek to use audio-visual items more often than secondary teachers and, accordingly, are better acquainted with what is and is not held within their schools; or it might be that the organisation of hardware within the primary school is more efficient and, therefore, the teachers there are better informed about what is available. In this connection it is also interesting to note that every primary school teacher knew whether or not there was a radio or a colour television within their school. This would seem to indicate heavy interest in, if not use of, these items.

2.43 It is also evident that secondary teachers clearly are better off in terms of the general availability of equipment. For example, of the primary school teachers 91.0% do not have available to them video recording machinery, 72.0% have no overhead projector and 55.0% no cine projector. The reasons for this appear mainly, if not entirely, financial. The 6.0% of primary schools which *do* possess video recording machines will almost certainly owe their good fortune to the hard work of a Parent Teacher Association or to the beneficence of a local individual or company. One primary teacher reported:—

> *Most of the children's fathers work at the yard down the road. So when I found that we couldn't get a slide projector any other way I just went along one day after school and asked to see the managing director and explained who I was and was there any way he could supply us with a slide projector because there seemed no other possibility of us getting one through the official channels. He said he'd speak to his board and a fortnight later it arrived.*

It is true, however, that a few regions have installed VCRs in the occasional primary but this is far from being a frequent practice. However, it would be wrong to conclude that many primary schools are without a television. Although 34.0% indicated that they have no monochrome receiver and 38.0% no colour set available, it was always the case that there was in the schools surveyed at least one television. This finding is substantiated in another monograph based on this research.[8] It should also be noted that because teachers have reported an item as "not available" it does not therefore follow that their schools do not possess that particular piece of machinery. The teachers may simply consider it unavailable to them for use. It may, for example, "belong" to another department. Similarly, the "not known if available" responses could indicate that the school has the item but that the teacher is unaware if it is available for his/her use.

2.44 When we looked at the equipment which was available to teachers in their schools we found that the primary teachers regarded all the hardware as being "easily available" as opposed to "available". This was not so with the secondary teachers. It was left entirely to the individual teachers to differentiate between what was meant by "available" and "easily available", the criteria for the distinction being their own, and, therefore, not necessarily consistent. In the secondary schools there can evidently be problems in getting hold of some items of equipment. How much difficulty in access is likely to deter teachers from using a particular piece of hardware is not known but it is obviously a factor to be considered. One final point worth noting is that in the primary school the cassette recorder is fast replacing the tape recorder. The cassette recorder, which is often combined with a radio, i.e., a radio cassette recorder, offers a compactness and an ease of operation which may together explain its increasing popularity. This trend is not so detectable in the secondary school where, especially in languages and music, great emphasis is placed on the quality of recording and reproduction, the tape recorder is still in not infrequent use.

2.45 We did not test to see how either the sex of the teacher or the length of time the teacher had been teaching was related to their views on the availability of hardware.

2.46 However, we were interested to discover if there were any statistically significant relationships between teachers' views on the availability of items of equipment and the areas in which they worked. We thought that availability between our three areas would be different for the simple reason that spending on resources varies from authority to authority, and from school to school. However, this proved not to be so. There were differences but not as many as had been expected.

2.47 We must admit at this stage that the geographical divisions we employed were not ideal for comparison in this instance for within our Part Strathclyde area there is one Division poorly supplied with colour TVs. Therefore, the figures relating to this piece of machinery must be treated with caution in any analysis. It is also worth recording that only one of the Scottish education authorities, Dumfries and Galloway, issues a list of the standard equipment which a school should have depending on the size of its roll. Of course, all the regions try to ensure that certain items are in every school regardless of the school's size. When we examined results of the interview schedule pertaining to availability of hardware, figures referring to only two pieces of hardware were found to be statistically significant — the colour television and the cine projector (Tables 25 and 26). However, there is no doubt that according to the responses received, the teachers in the non Ed. Tech. area were less well supplied with certain pieces of hardware. For example, more teachers in the non Ed. Tech. area said that colour televisions and cine projectors were not available than did their colleagues in the other two areas. This was also true of other visual items, e.g., overhead projectors, video recorders. The reason for this is likely to be financial in that the non Ed. Tech. area has a large number of schools which can not afford such expensive equipment. Of course, it is also the case that not all the schools within this area are capable of receiving colour transmissions. Therefore, there is not much value in them having a colour television receiver.

2.48 *Storage of hardware.* We were interested in the storage arrangements because we felt that where the equipment is kept relates to the use the teacher may make of audio-visual aids. If there is a central store which houses all the school's audio-visual equipment then there can be few excuses for not knowing what is there, even although no list of holdings has been distributed to teachers. Difficulties can arise, however, over access to the store, over maintenance and over the borrowing of items. Further problems can become apparent if there are both central and departmental stores. Confusion can set in in the teacher's mind as to what is where and from where one item can be borrowed as opposed to another. Obstacles similar to those mentioned in relation to central stores are common with their departmental counterparts. Matters can be complicated even further when teachers keep hardware on a semi-permanent basis within their own rooms. We believe this to happen often with slide projectors, record players and overhead projectors. The notion of "ownership" exists and may be a deterrent to others. We spoke to some teachers who, rather than become entangled in the bureaucratic web of borrowing, had decided to use what they themselves owned and had rejected the school owned equipment. Our survey offers no figures to gauge the extent of this practice, but it was not a rare comment, particularly in relation to cassette recorders, record players and slide projectors. As one teacher put it:—

> *It's simply so much more convenient for me to use my own cassette and carousel. I don't have to rush around looking for the school's. I know I've got what I want when I want it. There's no problem over looking. And, quite honestly, my stuff is better than their's. I prefer it this way. And, of course, it means the school's equipment is available to another teacher.*

2.49 When we asked where the hardware owned by the school was kept we established that primary schools are five times more likely to have all their audio-visual equipment held in a central store than secondary schools (Table 27). 69.0% of primary teachers reported their schools as having all the hardware based there as opposed to 13.1% of secondary teachers. An obvious explanation is that the primary school, being smaller, has less equipment and, therefore, it is easier to create and maintain this kind of central organisation than in the secondary schools. Also, there is often more storage space available in primary schools, the majority of which are housed in one building in contrast to the annexes and split sites of many of our secondaries. There is great advantage in having such a method of storage in that, provided the borrowing system works efficiently, there is only one place in the school for a teacher requiring an item of machinery to go to look for it.

2.50 It is clear that in the secondary schools the equipment is more dispersed than in the primaries. For example, 15.2% secondary teachers reported that all the equipment was stored departmentally in their schools. Not one primary teacher said this. Also, 29.3% secondary teachers stated that the items were scattered throughout the central store, the departmental stores and the teachers' rooms. Only 10.0% primary teachers said this was the case.

The reasons for this may be that the existence of subject divisions in the secondaries, divisions that are not present in the primary school, coupled with the size of the secondary, both in geographic and population terms, make the dispersal of hardware a necessity.

> *It's not so bad getting hold of the smaller pieces — the cassette recorder, the slide projector. But the bigger stuff can be murder — the science people think of the cine as theirs. You've got to prise it from their technician. And the VCR seems to be regarded by the Depute Head here as being for show purposes only. No one gets using it. Perhaps we've no tapes.*

2.51 We did not analyse to see what kind of statistical relationships existed between any of our other three controlling variables and the methods of storing hardware in the schools.

2.52 *Assistance with audio recordings.* Before we leave the discussion on the availability and use of software and hardware we wish to comment upon the recordings from the radio which are done within the school. As was indicated in Table 4, the vast majority of teachers make use of audio-cassettes and tapes. Many of the items on cassette and tape are from Schools Radio programmes. Given that the non-promoted teachers spend most of their time in the classroom teaching, the question of who in the school is responsible for the recording of material needs to be answered. This was considered an important issue at the time the interview schedule was drafted and it has become even more so in the light of the responses indicated in Tables 70-76 (5.15-5.24).

2.53 We asked: "If you wanted any audio recordings done in the school, who would do it?" The replies indicated there is no uniform pattern in the schools (Table 28). Many teachers (42.9% in the primaries and 27.3% in the secondaries) do the recordings themselves. This may be out of choice or it could be that no alternative arrangements have been made. However, it should be remembered, in this connection, that only 5.0% of the teachers in the primaries came from single-teacher schools. It is also noteworthy that such a high number of teachers presumably have the confidence to do the recordings themselves. In the secondaries 55.7% of the teachers had assistance from a technician who did the recordings; in the primaries only 1.0% of the teachers reported in a similar vein. The main reason for this difference, doubtless, would be that few, if any, primary schools had a technician. However, 27.6% of primary teachers, as opposed to a mere 6.8% of secondary teachers, received help with recordings from an auxiliary. Therefore, it would appear that auxiliaries are used much more in audio-visual work of this nature in the primary than in the secondary school.

2.54 It must also be noted that in the primary schools help in the recording of broadcasts etc. came from other quarters. 10.2% of the teachers there said that the school secretary did recordings for them while 11.2% stated that it was the janitor to whom they turned for assistance in these matters. These are not insubstantial percentages and indicate the willingness of the ancillary staff in the schools to aid the teachers and pupils. It could be, of course, that school secretaries and janitors are legally required to do such work. Their formal job descriptions neither particularly interest nor concern us at present. We merely note that such statistical information as is given above only seems to confirm the importance of the janitor to the child and the teacher in the school, cf. 2.32.

2.55 *Inter-borrowing of resources.* We turn now to study some of the factors within the school that are likely to affect the use the teacher makes of resources. One of the important features of any "good" school is the close working relationship between the members of staff. If they do not co-operate, if they do not feel that they can go and seek help from one another, the teaching in the school and, therefore, the school itself suffer. We, therefore, checked on the amount of borrowing that can be done by the teachers. We asked: "Is it possible for you to borrow resources from other colleagues?" (Appendix C, Question 24). We did not enquire as to whether the teachers did, in fact, borrow.

2.56 It appears that nearly all the teachers (93.8%) felt that they could turn to their colleagues and be able to borrow resources from them when the need arises (Table 29). The negative replies (6.2%) were equally divided between those teachers who believed their colleagues un-cooperative and those who considered that their fellow members of staff had no materials which were of any relevance or value to them. We did not analyse these figures any further, i.e., against any of the three other variables, such was the high degree of positive response.

2.57 *Awareness of resources within schools.* Schools are filled with resources, both book and non-book, and we wanted to find out how many teachers believed that they were fully aware of all the resources dealing with their teaching areas which were held in their school. This became of particular concern given the views of the teachers (2.39) about the need for a central list or catalogue of the school's holdings. Awareness of the existence of a resource in this instance is a necessary precursor of use. The teachers can not use that of which they are unaware. Obviously if large numbers stated that they did not know what the school held and could produce well-reasoned arguments to support this claim, it would be an indication that the resource organisation within certain schools was not succeeding in acquainting the teachers with what was available in terms of the resources owned by the school. It would be an indictment of the information provision system these schools operated.

2.58 Our analysis revealed that 74.0% of teachers believed themselves to be fully aware of all the resources held in the school relevant to their teaching areas (Table 30). But it should be stated that we did not define what was meant by "fully aware", the interpretation of this phrase being left with each individual. We find it surprising that the figure claiming full knowledge is as high as 74.0%. In the primaries it is even higher, 81.0%, but in the secondaries it is down to 67.0%.

2.59 What this means, of course, is that quite a substantial number of teachers, 26.0%, asserted that they did not know of all the resources dealing with their teaching area held in the school. Of this 26.0%, almost two-thirds were secondary teachers, which, therefore, reflected more favourably on their primary colleagues. We would surmise that the reason for this discrepancy between primary and secondary could be that the primary school has more factors

facilitating shared knowledge and information dissemination among teachers than the secondary school. For example, primary teachers tend to have the same staffroom; those teaching the same age groups frequently are pursuing very similar courses; there are not the departmental divisions in the primary that exist in the secondary; and there appears to be more socialising within and without school amongst primary teachers than amongst secondary teachers. All these circumstances are conducive to a flow of information. And yet, of course, one in five primary teachers claimed not to be fully aware. A further explanation of the difference might be that, given the size of the secondary schools, given their strict subject divisions, and given their greater emphasis on departmental as opposed to central stores (Tables 17 and 19), there is likely to be not a little difficulty for teachers from Department X, e.g., History, finding out if Department Y, e.g., English, Music, holds items of use to them.

2.60 When we researched further to see if there was any difference between the sex of the teachers in their responses we found only a marginal dissimilarity of 2.0%. We then analysed to find if the same was true when using the area in which the teacher worked as the controlling variable. We discovered that teachers in the non Ed. Tech. area were more fully aware of what was held within their own schools (Table 31), the figures being 90.0% of teachers in the non Ed. Tech. area as opposed to 71.2% in Part Strathclyde and 66.2% in the Ed. Tech. area. At first glance this may seem somewhat surprising since it had been earlier observed that there were fewer schools in the non Ed. Tech. area with central and departmental stores than elsewhere (2.37). However, four points should be borne in mind. Firstly, "resources" in this question applies also to books and not simply to audio-visual software. Secondly, the schools in the non Ed. Tech. area were generally smaller in pupil roll and teacher numbers. This needs to be emphasised. Therefore, the staff in each department was less. Thus, there was a better chance of a teacher knowing what resources were held by colleagues. Thirdly, and again this is repetition, certainly the majority of schools in the non Ed. Tech. area did not have as many resources as the large comprehensives and primaries of Strathclyde and elsewhere. Fourthly, the existence of central and/or departmental stores is not a 100% guarantee of an efficient resource organisation within a school.

2.61 However, we feel that it would be incorrect to conclude from the data we have harvested, vid., Tables 22, 23 and 31, that central or departmental stores result in the teacher being less aware of what resources there are in the school for use. Provided the organisation of the books and software is efficient, provided there is an information provision system that is good, and provided the teachers are prepared to co-operate and believe in this method of organisation, we believe that there are no reasons why central and departmental stores can not fully acquaint the teacher with everything that is held in the school, and offer easy and swift access to the material needed. What our findings indicate to us is that further analysis and research is necessary within this area in order to identify more closely the factors involved in successful information provision in the school.

2.62 We also tested to see what the relationship was between resource awareness and the length of time the teacher had been teaching. We anticipated that the more experienced the teacher, the less likelihood there was of that teacher being unaware of all the resources dealing with his/her subject area within the school. One would not assume that a new teacher could know of everything in the school. On the other hand, the older teacher might be expected to be acquainted with what was available for use. Our results confirmed this belief. The less experienced teachers did not score as well as the rest of their colleagues. 85.7% of both Groups Two and Three as opposed to 61.1% in Group One claimed to be fully aware of what was available to them in their schools (Table 32).

2.63 We then proceeded to ask those teachers who had said that they were not fully aware of all the resources available to them within their teaching areas the reasons for their views. We, therefore, enquired of 52 interviewees. However, it should be noted that there were other respondents who initially claimed that they were not fully aware of what the schools held but who changed their minds when they failed to produce evidence to support their opinions. We don't consider it too cynical to suggest that this group may have been the realists in that they regarded it possible, even likely, that they did not know of everything. This section is obviously not referred to in the discussion in the succeeding paragraph.

2.64 We found that 73.1% of the teachers who claimed that they were not fully aware of their schools' holdings blamed the absence of a list/catalogue for their lack of knowledge (Table 33). It also emerged that there is a danger in allowing teachers to keep resources in their own rooms when no central or departmental list is kept; 71.2% of teachers said that they found out about the existence of certain items by stumbling across colleagues using them. It makes one wonder how many teachers there are who have not had that good fortune and who blithely believe that they know all the resources relevant to them in the school. It was not just one or two people who spoke in this vein and their remarks were very similar:—

> *I just went in next door to ask about something and on his desk were a couple of cassettes on the Russian Revolution. It wasn't that they were being kept from me. The other teachers in the department knew about them and used them. It was that they all thought I'd been told about them — and I hadn't.*

Under "other reasons" came such explanations:—

> *. . . the auxiliary told me that we had film strips on quite a few things. I wouldn't have known otherwise . . .*
>
> *. . . I came across a lot of material in a cupboard in a classroom where I never normally teach. I was filling in on a "please take" and was wandering about being curious . . .*
>
> *. . . one of the kids told me that another teacher has a couple of cassettes on a topic and he keeps them in his desk . . . Of course, they could be his own. But, even so . . .*

2.65 *Resource information within schools.* Given that a teacher is committed to the use of resources and wishes to make as much use of them as is possible within the classroom, the problem then arises — who to contact in order to get advice and practical help? This is particularly the case when little is known about what exists and in what format. We were concerned with how aware the teacher was of the people and places who could give assistance. It was important, therefore, to find out whether schools had a network by which the teacher could find out what was available. "Network" is, perhaps, rather a grandiose term for the way it was interpreted during the interviews. What it came to mean was — is there any one or any group within the school to whom the teacher can refer in order to get information and asistance about resources? A "network" implies a linking, a chain. Very few schools were found to have a formal, established "network" of information and communication in that sense.

2.66 We found only nine teachers who indicated that their schools had a network of information relating to resources (Table 34). In the case of the four primary teachers involved, all said that the Assistant Head Teacher had responsibility for resources and it was that person to whom they would turn for advice and help. Similarly, the five secondary teachers who responded positively all reported that the school librarian was the individual from whom they sought assistance. 186 of the teachers surveyed said that their schools had no formal, established network. This is an exceptionally high figure especially since many of the secondary schools had a full-time librarian and in most of the schools there existed a senior post with responsibility for resources. Obviously, however, teachers prefer to go their own ways. The question, therefore, was — which ways? In order to find out, we asked.

2.67 We enquired generally of the teachers: "Given that you want to use resources in your teaching but that you don't know what exists, what would you do?" (Appendix C, Question 31). We did not prompt in any way; and the figures contained in Table 35 reflect the people, places and organisations which came into their minds as being possible contacts in order to find out about the resources that would be available to them. There is little difference between the primary and secondary responses, the biggest discrepancy being over commercial catalogues, which 52.0% of the primary teachers indicated they would use as opposed to 34.7% of secondary teachers. Nevertheless, these findings must be very pleasing to the publishing houses which flood the schools with high-quality, glossy productions proclaiming their wares. We find this rather disturbing from an educationist's viewpoint that more than four out of every ten teachers would automatically refer to commercial organisations for assistance because although the publishers are the main suppliers their business is the selling of their own products. Their primary concern can not be with supplying teachers with information. And, of course, what information they do supply relates only to their own materials. A teacher consulting a publisher's catalogue will find information only about the resources produced by that one firm. Certainly consultation of a catalogue does not entail purchase. Nor does it follow that the teachers would not seek further professional advice. However, the commercial publishing industry cannot but be other than satisfied with this kind of finding.

2.68 Another body which would be contacted for advice by many of the teachers is the local resources centre or teachers' centre. 44.0% of the primary teachers and 42.9% of the secondary teachers mentioned it. When it is taken into consideration that only 88.0% of all the primary teachers and 86.0% of all the secondary teachers (figures quoted in Table 43), in fact, had a local centre to which they could refer, it means that one out of every two teachers would turn to these bodies for advice. Given that this is one of the functions of these centres, it shows how well they have become established in the teachers' minds over the past decade as a place where aid can be sought.

2.69 Unfortunately the same cannot be said of the national bodies, the Curriculum Development Centres and the Scottish Council for Educational Technology. Three initial points must be made. Firstly, the CDCs refer to the four centres when they all had different subject remits. Secondly, the Primary Education Support Service at Callendar Park College of Education, Falkirk, was not regarded as a curriculum development centre for primary education. And, thirdly, we did not expect national organisations to be quoted as frequently as local agencies by unpromoted teachers since the normal contacts that the CDCs and SCET have with the schools are with promoted, rather than unpromoted, staff. However, that only 7.1% of secondary teachers indicated that they would have contacted a CDC for assistance is hardly cause for satisfaction. This was seven out of the 91 teachers for whom there was an appropriate Centre (information obtained from Table 43). Given that one of the declared aims of the four CDCs is "the dissemination of information", it would be fair comment that they are not succeeding in making this aspect of their work known to the majority of unpromoted secondary teachers. However, if the teachers' responses to the CDCs are disappointing, their attitude to SCET is doubly so. Only one primary teacher and two secondary teachers, i.e., 1.5% of all the teachers interviewed, said they would get in touch with SCET for help. SCET, it must be remembered, has an Information Service currently employing four people whose main duty is to provide information and which contains a software reference file on over 1,700 catalogues of audio-visual material available in the United Kingdom and a hardware file listing details of more than 10,000 items of audio-visual and related equipment. A response rate of 1.5% can only be described as disappointing. It provokes one or two obvious questions. It is, of course, a valid argument to point out that both the CDCs and SCET do not exist solely to disseminate information. For example, the CDCs are heavily involved in the implementation of curriculum development work; and SCET has a multiplicity of interests, of which the Information Service is but one. It also must be noted that the Service serves areas of the education sector other than primary and secondary schools as well as industry.

2.70 Two or three other interesting points emerge. Few, only 3.0%, of the teachers admitted that they would "not bother" to try to track down information . . . By far the most popular source of information, both in the primary and the secondary was one's colleagues. 64.0% of primary school teachers and 78.6% of secondary teachers would turn to them for help . . . 15.0% more primary teachers said they would consult commercial catalogues rather than contact one of the education authority Advisers (52.0% using catalogues as opposed to 37.0% speaking with an

Adviser); and the same trend is discernible, though less marked, with the secondary responses (34.7% of the teachers indicating catalogues, while 28.6% mentioned an Adviser). A possible explanation could be that catalogues are on the premises whereas an Adviser has to be pursued and found. One must also bear in mind that not all the teachers interviewed had local Advisers and/or teachers' centres to which they could turn . . . Colleges of education are twice as likely to be used by primary school teachers as by their secondary counterparts (18.0% in contrast to 8.2%). A reason for this could be that the majority of primary teachers have had far longer contacts, while students, with the colleges than secondary teachers. Therefore, they may have a better idea of what assistance is available there . . . Lastly, it would appear that school librarians are not viewed by all the teachers as the people to whom they should initially turn for assistance. Only 2.0% of primary teachers would talk to their librarian, quite possibly because the librarian in the primary school, if the post exists, is often an auxiliary or the school secretary; however, just 14.3% of the secondary teachers would seek out the school librarian, i.e., 14 teachers out of the 38 schools which had full-time librarians on the staff.

2.71 We analysed to see if there was any difference in the responses of the male as opposed to the female teachers but found no statistically significant results. There was rarely little more than 2.0%-3.0% difference in the findings.

2.72 We also tested the replies against the region in which the teacher worked (Table 36). Given the disparity (geographical, social etc.) between the three areas being studied, we expected that there would be differences in the responses of the teachers when asked to where they would turn in order to find out about resources which would be available to them for use in their schools. We found that in the non Ed. Tech. area only 12.0% of teachers would turn to their local resources centres for assistance, presumably for the simple reason that this area has so few centres where information and resources are available to the teacher. Similarly, the geographic features of the non Ed. Tech. area (the regions which constitute it are the extremities of the country, north and south, and are isolated in at least one sense from the rest of Scotland) probably explain why only 6.0% of the teachers would contact SCET, only 4.0% a college of education, and only 10.0% would look elsewhere. For teachers in the Outer Hebrides or in the farmlands of Berwickshire, there is no nearby college of education, nor are there many local bodies or organisations (other than the public library), which can provide assistance. SCET, of course, is in Glasgow, which is equally distant — assuming, that is, that the teacher has heard of it.

2.73 It is not surprising, therefore, that the most remarkable figure in Table 36 is that 74.0% of teachers in the non Ed. Tech. area would use commercial catalogues. This is not quite twice the national figure (43.4%), but it is, nevertheless, an astonishingly high percentage. It would seem evident that the commercial publishers through their catalogues are fulfilling a need which the teachers in the non Ed. Tech. area have and which elsewhere in the country is met in part by local authority establishments, e.g., by resources centres, and, to a lesser extent, by other educational institutions or bodies, e.g., the colleges of education, CDCs and SCET. This emphasises the educational, as opposed to the geographic, isolation that teachers in this area must feel. They may not be the forgotten people, but they are certainly a neglected group. They do not turn to education for help. They look to commerce because it is commerce in this instance which is providing them with what they need.

2.74 When we looked at the results obtained by cross-tabulating the responses with the teachers' experience we found that those in Group One, i.e., those between their first and fifth years in teaching, would make frequent use of their colleagues, the local resources centres and the colleges of education (Table 37). The same is true of the members of Group Two. However, in Group Three, the number of teachers who said they would turn to these people and places was not so high. Also, more teachers in this, the most experienced, group would rely on commercial catalogues. These findings could be explained by many things. For example, resources centres are very recent developments. The older teachers may not think of them as information providers in the way their younger colleagues do. Similarly, colleges of education have only recently started to encourage teachers to make use of their facilities. It would be only natural, therefore, that more of those who were lately at college should look there for help than should those who graduated a decade past or more.

2.75 *Resource organisation within schools.* Finally, in this chapter about teachers and the resources and information available to them within the school, a question was asked about the teachers' opinions of both book and non-book resource organisation in the schools. As has been stated earlier, the division between book and non-book items is, in many ways, an artificial one and is one not acknowledged by many schools.

2.76 We discovered that, despite the critical comments of the teachers which have been recorded elsewhere (2.38—2.40) in relation to resource organisation, the vast majority (80.0%) said that the resources dealing with their subject areas were organised in their schools in a way that was either convenient or very convenient for their use of them (Table 38). There was a slight difference in this response according to the type of school (85.0% of the primary teachers in contrast to 75.0% of the secondary teachers) but this does not seem particularly significant. The general tenor of their comments was that a central or departmental store was the best way of organising resources. This would prevent "hoarding" and "personal ownership" and would ensure that the teacher always knew where to look for what was required.

> *Once we get away from the notion of keeping things in our own rooms we shall have made an enormous advance. It can be so difficult, though, fostering the co-operative spirit.*

Those 18.0% of the teachers who indicated dissatisfaction with the type of resource organisation that was present in their schools tended to come from schools where there was neither central nor departmental storage. It must be pointed out that this question did not concern itself with the teachers' opinions on the quality of their school resource

organisation, but simply their views on the general method which had been adopted. Not a few teachers commented that while a central store was the most efficient way of organising the resources, its existence did not guarantee efficiency.

> *Having the store is one thing. Making it work is quite another matter. Sometimes I wish we all just kept everything ourselves. At least then I would know where everything was.*

2.77 When we looked at the responses against the three remaining controlling variables we found no results of statistical significance.

1 Anyone who wishes to study the tables which have not been included in the report should contact SCET.
2 Scottish Education Dept., *Schools, Pupils, Teachers 1974-75* (Edinburgh; H.M.S.O., 1977),pp. 48-49.
3 Unesco — IBE, XVth International Conference on Public Education, *Access of Women to Education* (Geneva: Unesco, 1952), Publication No. 42, pp. 34-39.
4 Educational Studies and Documents, *Access of Girls and Women to Education in Rural Areas* (Geneva: Unesco, 1964), p. 32.
5 For example, Nadice K. Cammish (ed.), The Education of Women, *Aspects of Education: 19* (Hull: University of Hull, 1977); Angela Zucconi, *The Responsibilities of Women in Social Life* (Strasbourg: Council for Cultural Co-operation, Council of Europe, 1968).
6 K.T.Kennedy and J.H.Duthie, *Auxiliaries in the Classroom: A Feasibility Study in Scottish Primary Schools* (Edinburgh: H.M.S.O., 1975), pp. 86-87.
7 J.H. Duthie, *Primary School Survey: A Study of the Teacher's Day* (Edinburgh: H.M.S.O., 1970), p.55.
8 Hamilton, *Regional Resources for Scottish Schools.*

CHAPTER THREE

Outwith the Schools

3.1 *Introduction.* In this chapter we are looking at the teachers' contacts about resources with educational bodies and groups beyond the school — concerning information about resources or the borrowing of them or the teachers' knowledge of what is centrally available. There is a large number of places beyond the school gates to which a teacher can turn for advice and assistance. Our concern here is particularly with those centres established by education departments, regional and national. What the interview schedule was designed to discover was the extent to which the unpromoted members of staff were aware of these centres and the use they made of them. It is conceded, of course, that many teachers may be using materials from regional centres and elsewhere without knowing from where the resources have come other than that their Principal Teacher has supplied them. Also, it is acknowledged that the majority of the centres do not deal directly with non-promoted teachers, preferring very understandably to use those in promoted posts as their "contact men" within the schools. We shall be studying, therefore, the responses of the teachers to questions about: inter-schools borrowing; their knowledge of, contacts with and use of certain central resources centres; and their use of other resources services.

3.2 *Inter-schools borrowing.* At a time when, within the education sector, there are severe financial restrictions which affect schools in many ways it can be argued that the case for the "pooling" by neighbourhood schools of what is available is very strong. Obviously, it makes little sense in terms of cost-efficiency for three schools to have the same expensive tape-slide presentations, which will only be used two or three times a session, lying redundant on the shelves of stores for the rest of the year. However, it is quite possible that this kind of communal sharing is already taking place. We, therefore, asked the teachers if they had ever borrowed resources from other schools; if so, how was it done; and if not, why not.

3.3 Their responses revealed that just over one in four teachers has borrowed items from other schools and that there was no difference between primary and secondary numbers in this (Table 39). This was quite a small percentage and, therefore, what was of more interest was the kind of borrowing patterns that did exist and the reasons given for not borrowing.

3.4 The majority of borrowing that does take place is done from nearby schools and/or as a result of personal contacts (Table 40). 64.8% of the teachers who borrowed from other schools did so primarily because they knew another teacher at the school concerned and from that person had learned that the school held items which could be of use to them. Although it is not recorded in our table, nearly all the borrowing in these cases was both initiated and executed solely by the two individuals concerned. In other words, there seems to be no formal contact between schools initiated by unpromoted staff, something which may not be surprising but can hardly be regarded as ideal. The teachers found out as a result of knowing another teacher that their colleague's school had something that would be of assistance to them in in their teaching, and the arrangements for handing over the resources were completed without consultation with the senior members of staff in either school. It was done unofficially. Those teachers who did borrow from far-off schools, 14.8%, did so as a result of asking for help either from the local resources centre or from an Adviser who handled the details about borrowing.

3.5 Of those teachers who did not borrow, most said that they had never thought of doing it (Table 41). This would seem to indicate that when teachers are searching for something, general or particular, it is unlikely that they will turn to schools in the neighbourhood for help. Indeed, the general impression from this table is that inter-borrowing amongst schools is some kind of social taboo. 31.8% of primary teachers and 37.5% of secondary teachers who did no borrowing explained this by saying that they didn't know it was allowed, which is akin to saying that they believed it was forbidden. The idea of "ownership" of resources seems very strong, be it within the teacher, the department or the school. However, in this connection, only 4.1% of the teachers to whom this question applied, i.e., six out of 146 teachers, stated that they believed inter-borrowing should *not* take place. Recalling that the other 54 teachers in the survey have all indulged in this practice, and, therefore, presumably consider it "right", one may conclude that a mere 3.0% of teachers are opposed to it on principle. This, therefore, would seem to indicate that the "ownership concept" is weak amongst unpromoted staff and its strength lies elsewhere in the echelons of the educational structure. At the same time, however, one must concede that there are practical difficulties involved in inter-schools borrowing. For example, timetabling problems; concern over loss and subsequent replacement — who pays?; the cost of the loan in terms of time, transport and postage. But, having said all that, one is still left with the thought that more use could and would be made of resources if active encouragement to this type of borrowing was given.

3.6 When we analysed the responses of the teachers to aspects of borrowing against our other three variables we found no statistically significant results — except in the instance of the reasons given for not borrowing from other schools when tabulated against the region in which the teacher taught. It was clear that the teachers in the schools in the non Ed. Tech. area work quite independently from one another (Table 42). 82.9% of them said that they had never thought of borrowing from another school. This could be because many of the schools are miles apart (88.6% of the teachers gave this as a reason for not borrowing). There clearly is no kind of network in this area, and not only is there not a network, but the possibility of one has not even been considered by the majority of the teachers (51.4% stated that they thought inter-school borrowing was not allowed). This is despite their isolation from central bodies, e.g., the CDCs, SCET, the colleges of education.

> *We are literally miles and miles away from the nearest secondary. The practicalities of borrowing defeat the best of intentions. We are isolated. We recognise this. So we become totally self-reliant. Possibly too much so. We do not look for help because we know it's too far away.*

3.7 *Awareness of central resources centres.* A great deal of education authority money has been spent in providing regional, divisional and, in some places, area resources centres for teachers.[1] There are also national bodies which perform similar functions, e.g., the CDCs, SCET, which houses the Scottish Central Film Library, etc.[2] Between them these places hold hundreds of thousands of items, book and non-book, software and hardware, which are available to aid the teacher in the classroom. Therefore, it was important to establish whether the teacher has ever heard of the various centres, how much contact takes place between the teachers and the centres, how aware the teachers are of the holdings, and, if the teachers have used these establishments, their opinions of them.

3.8 Two points should be noted initially. Firstly, the "local" resources centre or teachers' centre was always given by name by the interviewer. Frequently it would be a regional or divisional centre and, occasionally, an area one. The centre quoted to the respondent was always that centre which was nearest the school and which was known to hold materials relevant to the teacher. Secondly and similarly, the appropriate CDC was always named by its title and address.

3.9 We found that the centres established by the regional education authorities are obviously well known to teachers working within their locality (Table 43). Only 6.8% of the primary teachers and 9.3% of the secondary teachers had never heard of their local centre. It is clear that the vast majority of teachers at least are aware of local assistance. The same cannot be said of the national bodies. 30.8% of the secondary teachers who had a CDC appropriate to their subject area had never heard of it. However, a far larger total, 76.0% of the primary teachers and 71.0% of the secondary teachers, had never heard of SCET which does not have the limitations of the subject remit attached to the CDCs in those days. Even allowing for the fact that the Council was established but five years ago this is a disappointing finding. SCET has within that time received substantial financial support from the Scottish Education Department and the Convention of Scottish Local Authorities to help meet its declared aims "to provide services and render administrative, technical, managerial or other assistance or advice in the field of educational technology to any university, college, school or other educational establishment."[3] However, almost three out of every four unpromoted teachers do not know of the Council's existence and, therefore, cannot turn to it for "services ... assistance or advice".

3.10 When one compares the findings in Table 43 about local resources centres, the CDCs and SCET with those given in Table 35 (2.67—2.75) it is evident that although teachers may be aware of the existence of the appropriate CDC and SCET, only a small percentage with such knowlege — it's single figures for both types of organisation — thinks of them as places to which to turn to find out information about resources. In the case of the local centres, however nine out of ten teachers had heard of their nearest centre and over four out of ten teachers had said that they would use them when they required assistance. It is clear that unpromoted teachers who are prepared to go looking for information and software tend to go first to their local centre but more often than not do not think beyond it to national organisations — even when they know of the existence of these places.

3.11 Our analysis also revealed that the Scottish Central Film Library (SCFL), which is one of the services offered by SCET, is far better known than the parent body. 79.0% of primary and 76.0% of secondary teachers had heard of it. These figures are comparable with those for the local resources centre or teachers' centre. However, very few teachers (11.0% in the primaries and 8.0% in the secondaries) had ever seen the "Index of Broadcasting Resources" which is a SCET publication detailing schools' radio and television programmes and which is sent out to the education authorities for distribution to the schools. It is our understanding that most authorities send copies direct to promoted staff. The booklet is quite expensive (an estimated £2000 in printing costs alone in 1978/79) and the number of people who have seen it (it was shown to all the teachers when the question was asked) is very low. Since the interviews were completed, a new style of document has been produced and different methods of distribution for the "Index" have been adopted. Further comment, therefore, is of very limited value.

3.12 We analysed to see if there were any differences between the replies of the teachers and their sex, region and length of experience but could find none of any statistical significance. However, it must be pointed out that the cell figures relating to the CDCs and SCET were small and, therefore, no conclusions should be drawn about these organisations. It could well be the case that teachers in the non Ed. Tech. area, since they do not have local resources centres to which they can turn for advice, do, therefore, use the CDCs and/or SCET as a substitute. However, our sample was not sufficiently large enough to support that claim. Alternatively, and this would seem to be more likely, it could be that these bodies seem to the teachers in the outlying districts too far off and remote to contact. Once again, our survey cannot offer conclusive evidence on this.

3.13 *Contacts with central resources services.* Having found out how aware teachers were of the central resources centres available to them we then enquired whether they had ever initiated contact with any such services to find out information about resources and/or borrow resources. Their replies indicated that they made more extensive use of the local, rather than the national, resources services available to them (Table 44). Approximately half of the teachers interviewed for whom there was an appropriate education authority centre available, be it regional, divisional or area, had initiated contact with that centre to try to find information about resources or to try to borrow resources. There was here no discernible difference between the habits of the primary and the secondary teachers with the exception of their use of the area centres where the numbers involved are too small to draw a definite conclusion. Similarly, the members of the local Adviserate team were often consulted, although here there is a discrepancy between primary and secondary, with 45.0% of the primary teachers initiating contact with the Adviser, but only 28.1% of the secondary teachers doing this. It is possible that the primary school staff is a more closely-knit unit than the secondary counterpart and is more aware of the Advisers and whom to contact. It is also the case that there is not an Adviser for each subject area within the secondary curriculum in every region.

3.14 The number of teachers contacting the local School Library Service was relatively few, 17.7% of primary teachers and 3.1% of the secondary teachers, although it is possible, and indeed likely, that this figure is higher since it refers only to direct contact between the teacher and the SLS outwith the school, i.e., it does not include "asking the school librarian". A number of explanations for this suggest themselves. Firstly, in many of the regions the Service is not a particularly "strong" organisation and is not likely to spring to mind in the same way as the local resources centre. Secondly, many of the enquiries made by teachers would have been concerning audio-visual items, both software and hardware, and not a few of the School Library Services, which differ of course from region to region, handle only books. Thirdly, the Service was not mentioned by name by the interviewer and this will certainly account in part for the low response rate. Fourthly, the fact that over five times as many primary teachers contacted the Service as did their secondary colleagues may be due to the fact that in many regions the School Library Service concentrates upon provision of materials for the primary school.

3.15 As would be expected following the findings detailed in Table 43, not many teachers initiated contact with a CDC or SCET/SCFL — 18.7% of the secondary staff with the appropriate CDC, 12.0% of primary and 19.0% of secondary teachers with SCET/SCFL. These figures can be used to support the claim that the national bodies are only referred to directly by those teachers who fail to find what they want at the local level. However, when we looked at Tables 43 and 44 together, i.e., the teachers' awareness of and their contact with the resources services, we did note that just under one-quarter of the teachers who *knew of the existence* of the CDC appropriate to their teaching area had on at least one occasion made use of it. Similar comparisons for local centres, SCET etc., were not possible since the categories in the two tables do not coincide.

3.16 We also discovered that few teachers, i.e., 8.0% in the primary and 5.0% in the secondary, get in touch with a college of education or elsewhere. This could be because the colleges etc. are viewed if not as national, at least as "non-local". Also, colleges of education, like the School Library Services, were not explicitly named in the interview. Further to the point, not all colleges have made their facilities available to the teaching population and, consequently, many teachers would not automatically think of them when deciding whom they should contact for help.

3.17 One final point of interest emerged when we compared Table 44, which refers to the contacts initiated by teachers with central resources services, with Table 35, which refers to places to which teachers would go to find out information about resources. We found that in the case of the CDCs and SCET more teachers when asked if they had initiated contact with these places had said "yes" than had indicated that they would use those same services if they were seeking advice or help about resources. Why this should be so is unknown to us. It could be that the teachers do not readily think of these places as centres where assistance is available — which is a theory which finds support elsewhere in this report. However, this discrepancy might be explained quite simply by the fact that in one question we named the centres and in the others we did not.

3.18 We checked the teachers' replies against the three other controlling variables but could find no results of statistical significance.

3.19 Having enquired about whether the teachers had ever initiated contact with the central resources services we then reversed the question and asked if any of the central resources services had ever been in touch with the teachers. By this we meant: had the teachers ever heard or seen anything from these places giving details of what was available to them there? It appears that the local resources and teachers' centres have been most successful in informing the teachers of the resources available to them (Table 45). This is particularly the case with the regional centres, all of which have been able to produce leaflets or lists or even catalogues detailing their holdings. These have then been distributed in many instances to the schools. Accordingly, 63.3% of primary teachers and 53.5% of secondary teachers have seen communications of one kind or another from them. Similarly, the Adviserate, as a group, obviously works very hard to keep the teachers abreast of the latest developments. 49.0% of teachers in the primaries and 42.7% in the secondaries have indicated that Advisers have informed them about resources available to them. It is also noteworthy that the School Library Service, despite the fact that it was not named by the interviewer, is quoted by 20.8% of primary teachers as having informed them of what the Service has that might be of aid in the classroom.

3.20 Fewer teachers have received information from the CDCs or from SCET/SCFL than from their local centres. This is despite the fact that these national organisations distribute regular newsletters which contain details of resources to the schools. Only 21.0% of primary staff and 18.0% of secondary had read anything from SCET/SCFL.

It is evident, therefore, that the communications which these bodies send out do not percolate through to the majority of unpromoted teachers. Where the blockage is is uncertain, but there can be no doubt that one exists. We find it rather mystifying as to why there should be such differences in the responses relating to the local centres as opposed to the national bodies. One obvious explanation is that staff from the local centre may have called personally at the school to inform the teachers of the resources available to them. Also, it is possible that, if one teacher goes along to the nearby centre, he (or she) may bring back to the school leaflets etc. which the other teachers would then see. It is fairly clear that this is less likely to happen for a whole variety of reasons, e.g., geographic, with a national organisation. The only definite fact is that, despite the efforts of the CDCs and SCET, relatively few unpromoted teachers say they have ever been contacted by them with information about resources. It would be unfair to comment upon colleges of education in the same vein for very few of them circulate schools with information about their resources.

3.21 The only statistically significant finding which we observed when we employed our three other controlling variables referred to contact by certain of the central resources services when cross tabulated with the regions in which the teachers worked. We found that the figures relating to the CDCs and SCET/SCFL indicate that fewer teachers in the Part Strathclyde area have received communication of one kind or another from the CDCs or SCET/SCFL than their colleagues in the remainder of Scotland (Table 46). This could be because these organisations aware of the problems posed by geography and by the lack of local resources centres have, therefore, concentrated their effort in the other areas. However, if that were the case, one might have expected to observe a higher response rate from the teachers there in terms of communications with or use of these bodies. The figures show that this was not so. We really are unable to offer a satisfactory explanation for these findings.

3.22 We also noted different responses relating to the Adviserate (56.6% in the Ed. Tech. area, 53.2% in the non Ed. Tech. area and only 30.1% in Part Strathclyde) which probably reflect the size of the regions (in terms of schools and staff) in which the Advisers work. Clearly, one cannot expect any Adviser to see or contact all the teachers within his catchment area, but the evidence is that those outwith the large Strathclyde conurbation are the most successful in this regard. The similarity between the the figures for the Ed. Tech. and the non Ed. Tech. areas may seem somewhat surprising in the light of the previous sentence since one would anticipate the non Ed. Tech. figure being considerably higher. However, it must be remembered that in the remote regions the number of Advisers is smaller than in the rest of the country. Accordingly, 53.2% is a high percentage of teachers to have been contacted by an Adviser.

3.23 *Knowledge of resources held by central resources services.* Having enquired about the teachers' awareness of and contacts with these services we then proceeded to ask the teachers if they felt they knew what these places held in terms of resources. Obviously no teacher would be expected to have an extensive knowledge of the resources that might be useful. However, we did try to get an indication of the teachers' general awareness of what is held by the named places (Table 47). It is evident that a large minority of teachers does know approximately what is available to them in their local centres. Also, the findings illustrate the trends that have become apparent in this section of the survey, namely that: — (i) the teachers are better acquainted with their local resources centres than with national bodies; and (ii) slightly more primary teachers — on average 5.0%-7.0% — have more contact and have more awareness of what is locally available than secondary teachers. However, it is not at all surprising that teachers should be less acquainted with what is held at the CDCs and SCET for the national bodies are not as accessible to the vast majority of teachers as the local centres nor do they, with the exception of SCFL, publish a comprehensive catalogue of their holdings.

3.24 Looking over the Tables 43-47 one significant point to emerge is the relative constancy of the figures relating to each of the centres. Examining the returns for the local centres, it can be seen that it is rare for more than 50.0% of the teachers who have a regional, divisional or area centre to have said that they have initiated contact with a centre or they have seen a communication from such a centre or they know what the centre has. As a generalisation it seems that for every one teacher who has made contact or has been contacted there is one other who has not. With the CDCs and SCET/SCFL that figure alters, so that for every teacher who is aware and has been made aware of these bodies and their holdings, there are nine or ten of whom the opposite can be said.

3.25 *Opinion of central resources services.* We asked those teachers who had requested resources from the centres mentioned for their opinions of the assistance given to them. They indicated these on a five point scale. Therefore, the figures quoted, and referred to in Table 48, will not apply to all the teachers who have used these centres for many will have got what they wanted without seeking help from the staff there. We found that the small number of teachers who had asked for help from centres tended to be almost entirely complimentary to the centres.

> *The staff were great. They seemed to pull in material from all over the place for me and not just what they had on their own premises. I go down a lot now.*

The instances of criticism were extremely rare. The other outstanding feature of the responses was the large number of teachers who had never sought help at these resources bases. This raises two issues: — (i) do those teachers, who do use the centres but do not request help from the staff, utilize the services available as fully as they might wish? In other words, by failing to enquire are these teachers "missing out" on what the centre has to offer?; and (ii) do enough teachers, in fact, use the centres to warrant their continued existence in their style as at present? In any consideration of these issues, it must, of course, be remembered that it is unpromoted teachers alone to whom we are referring. It may well be that it is the Principal Teachers who are the official or unofficial communication links with the centres.

3.26 We found nothing statistically significant when we checked on the teachers' opinions of these services against their sex, the region in which they taught and their length of time in teaching.

3.27 *Additional resource services.* Some teachers look beyond the services offered by the regional resources centres and the national organisations already mentioned to other places from where materials can be borrowed to use within their classrooms. Obviously, such actions are determined by a number of factors, e.g., the teachers' needs, their knowledge of other organisations with loan resources, the enthusiasm of the teachers. Therefore, we were interested to establish how widespread this practice was. We found that a large number of teachers, 67.0% from primary schools and 40.0% from secondary schools, made use of other bodies (Table 49). It is evident both from this table and the ones immediately preceding it that primary teachers are more likely to search for and use resources which are available to them from organisations, places etc. outwith their schools. We can only speculate on the reasons for this. It could be because, as Table 4 suggested (2.14—2.18), they have less visual resources within their schools than the secondaries and so feel the necessity to look beyond their own walls for assistance. It might also be that primary teachers believe that younger children require a lot of audio and visual stimuli and so the teachers are constantly on the lookout for new materials etc.

3.28 When we examined to see how the incidence of borrowing from additional places related to our three remaining controlling variables, the only statistically significant finding referred to the sex of the teacher. We found that 60.9% of women teachers as opposed to 40.3% of men teachers used additional resources services (Table 50). It was thought that this might be due to a shortage of audio and visual material in the primary schools in comparison with the secondaries. In other words, it had nothing to do with the sex factor. Therefore, we tested for the sex of the teacher and the results are shown in Tables 51 and 52. It might appear from these figures that differences observed earlier in Table 50 are explained by the type of school and not by the gender of the teacher. But it is more complex than that. The pattern of such borrowing in the secondaries differs in that for every one male teacher who borrows there are two who do not, whereas for the females it is one in every two teachers who makes use of these sources. In the primaries, however, there is little sex difference in this regard in that for every two teachers who borrow there is one who does not. The reasons for these results we can only guess at as this is manifestly an area requiring further investigation.

3.29 Having found (from Table 49) that teachers, particularly primary staff, turn to a large number of "outside" organisations and bodies from which they can borrow resources, we wanted to identify exactly which these organisations and bodies were. We, therefore, requested details. The first point to be made is that *without exception* the organisations mentioned did not charge for the hire of the materials which they provided on loan. Teachers and schools do not have the extra money to pay to borrow resources.

> *I don't bother looking at catalogues from places that charge. It's no use. We just don't have the money. It's only the "handout" places that interest me. Even then, if there's postage involved,....*

Over a quarter of the teachers, 25.4% from the primaries and 32.5% from the secondaries, who do borrow resources from other places have done so from national organisations, i.e., groups like The Forestry Commission, The National Trust for Scotland. (Table 53). Also, in excess of one in four teachers borrowing from "outside" bodies did so from commercial firms (22.4% of primary teachers and 32.5% of secondary staff). The term "commercial firms" is self-explanatory and denotes not only local industries but also large companies, e.g., B.P., Shell, Unilever, all of which have extensive film libraries and other kinds of software available without charge to schools. A large number of teachers, 65.7% of primary and 47.5% of secondary, had received resources from "other places", such as local libraries (public and university), the embassies of foreign countries, charitable organisations, e.g., Unicef, Oxfam. Colleges of education were also a popular source of materials. 31.3% of the primary teachers who borrowed from "outside" organisations did so from the colleges as opposed to a figure of 17.5% of secondary teachers. This trend, i.e., the preference of primary staff to use the colleges, has been noted elsewhere (2.70).

3.30 In the case of all the examples of "outside" resource sources from which teachers borrowed more primary staff were engaged in borrowing than their secondary counterparts. It is quite evident that, in contrast to the responses indicated in Tables 44 and 45, the colleges of education were used by quite a number of teachers who looked beyond the local authority centres, the CDCs and SCET. 31.3% of primary teachers and 17.5% of secondary teachers in this category said they had borrowed from colleges. At first glance this seems to contradict the findings of the two tables mentioned above. However, it could be explained as a result of the teachers using resources which were made available to them by a pilot survey which the college was conducting; *or*, perhaps more likely, it could be that students from the colleges of education on teaching practice at the schools brought with them items from the colleges' libraries, which were then used by members of the school staff; *or* because the teachers, being relatively new into schools, still had contacts with the college. We do not have, as is the case with so many of our findings, enough evidence to know which of these hypotheses is the most likely.

3.31 We discovered that there were no statistically significant differences when testing the responses relating to the different resource organisations and bodies against the sex, region of work and experience of the teachers.

1. Hamilton, *Regional Resources, for Scottish Schools.*
2. J. Gillespie, *Media Resources in Curriculum Development* Glasgow: Scottish Council for Educational Technology, 1980).
3. Memorandum and New Articles of Association of the Scottish Council for Educational Technology, Article III, Section 2, p.2.

CHAPTER FOUR

Resources: Ordering Procedures in Schools

4.1 *Introduction.* In this fourth chapter we are looking at the teachers' views on the processes for ordering resources for the schools and their opinions of the resources which already are held within their own schools. No matter how efficient the systems of resource provision existing beyond the schools' walls, the teachers, in the last resort, are going to have to rely heavily on what is available to them internally. Therefore, how much say they have in the purchase of new resources and how they regard the software, which is there within the schools for their use, are crucial issues. Clearly, the teachers who are regularly consulted about purchases ought to have a general awareness of what is available to them — not only because they are acquainted with what the school is buying but also because (presumably) they have taken an active interest in the decisions about what is to be bought. A teacher who considers the school's holdings unsuitable for one reason or another and who is unable to persuade the Principal Teacher or Head Teacher to acquire further items may become frustrated and disenchanted, and adopt a teaching style that is monotonous. Essential to the learning process are stimulation and provocation. Few teachers can stimulate and provoke a class without resources of one kind or another. If the aids are not readily available to the teacher, it is the learning process, the pupils and the teachers who all suffer. Therefore, we considered it to be of paramount importance to find out the teachers' perceptions and opinions of the ordering processes in schools and on the resources held within their own schools. We, therefore, investigated the replies of our sample to questions about: requests for purchases made by individual teachers and the responses to these requests; the methods used in schools to determine orders; the teachers' opinions of resource provision in the schools; and the changes desired by teachers to assist them in acquiring information about resources (Appendix C, Questions 43-50).

4.2 *Request for purchases.* We asked whether the teachers had *ever* requested any resources to be bought while at their *present* schools. Obviously here the length of time the teachers had worked in the school was of importance and it must be noted, therefore, that 12.5% of the teachers interviewed were only in their first year of employment at their present school. It is fair to assume that they would not have had sufficient time to assess the gaps within the resource provision there and to decide on their priorities for purchase. It is also likely that, of the teachers in their first year who had been employed previously in other schools (7.0%), there were some who had made requests for resources to be purchased when they were working at those other schools. In other words, the 78.0% of teachers who indicated that they had asked at one time or another for resources to be bought would almost certainly have been increased had we excluded from the question those in their first year of teaching in that school and included requests made for items to be acquired while at other schools (Table 54).

4.3 Be that as it may, almost four out of five teachers, while at their present school, had made requests for resources, be it hardware or software, book or non-book, to be bought. It is possible that some of the requests could have been made in a spirit of "spending for the sake of spending". It is not unknown for Principal Teachers to inform their staff that they have £X left of their allocation grant and this *must* be spent before the end of the financial year. However, one would assume that items recently requested have been sought from necessity for money in educational circles these days is not in abundance. The difference between requests emanating from primary schools (85.0%) and those from secondary schools (71.0%) is slight but it does mean that almost twice as many secondary teachers (29.0%) as primary teachers (15.0%) have not asked for materials to be bought. This is in line with previous findings in the survey. It could be explained by any number of possible factors: — that primary teachers are generally more short of resources than secondary teachers; that primary teachers believe in the use of resources more than secondary teachers; that secondary teachers find it more inconvenient to use resources than primary teachers etc.

4.4 We then proceeded to ask those who had made requests for resources to be purchased if the resources had indeed been bought. We found that nine out of ten teachers had had requests answered positively (Table 55). 92.9% of the primary teachers said this was so, as did 91.6% of the secondary teachers. These are very high figures and indicate that, provided that teachers are prepared to push for what they regard as important, the resources for which they ask are likely to be bought.

4.5 Our concern now was to establish why teachers' requests for purchases had been refused. It is evident that this had happened, on at least one occasion, to 36 teachers (Table 55) and so we asked them what reasons that had been given to them for the failure to purchase. Obviously since we dealt with only 36 people in this question the cell figures were so small as to enable only the most general conclusion to be drawn. It is self-evident that the reason almost always given for the failure to purchase was "lack of cash" (Table 56). This could mean that there was absolutely no money available. However, another interpretation is possible, namely that the Principal Teacher or

whoever was making the decision did not consider the requested item a worthwhile purchase, given what had still to be bought with the remainder of the allocation money. Therefore, the teacher was informed that there was no money available to get the resources for which he (or she) had asked. It is not a case of the Principal Teacher lying, rather of a value judgement being made, although the Principal Teacher would not necessarily see it in that light.

4.6 *Staff meetings.* The process by which schools decide on which resources to order varies from school to school and, within schools, from department to department. In most schools it would be reasonable to assume that there are staff meetings. These may be held on a regular or irregular basis. However, it is not known whether such meetings, always or never, include discussions on the purchase of resources. We, therefore, examined this issue in greater detail.

4.7 Very little difference was found between the primary and the secondary schools on this issue (Table 57). 60.0% of teachers to whom this question applied said that they attended departmental or school meetings at which discussions on the purchase of resources took place. This does mean, however, that for the remaining 40.0%, there were no formal group meetings at which matters relating to resources could be raised and openly debated. Viewed from a democratic standpoint, this seems a very high figure. One might have assumed that, given the academic qualifications of the group and the societal significance of the work being done, there would have been regular staff meetings at which the question of the resources available to the teachers would have been frequently on the agenda. Nevertheless, it would be incorrect to assume from these findings that, because almost four out of the 10 teachers interviewed stated that their department or school did not meet to decide what items should be purchased, these teachers, therefore, had no say in what resources were bought or that they did not have staff meetings. Such gatherings may indeed take place at which resources are not a topic of conversation. We have no figures available nor were there any on which we could lay hands to show how often schools have, or should have, formal meetings of any sort. Also, it could be the case that in many schools the Principal Teacher or the Head Teacher chooses to speak to the members of staff individually on this matter. Further, as has already been pointed out (4.4), the vast majority of teachers who did make formal requests for definite items to be purchased were met with a positive reply.

4.8 Having established how many teachers had departmental or school meetings at which the purchase of resources was discussed, we then wished to find out how the teachers viewed the procedure for ordering resources in their departments or schools. The figures revealed that the most noteworthy feature was the influence exercised in the choice of resources by those in promoted posts (Table 58). Two out of every three teachers reported that the Principal Teacher or Head Teacher either exercised the power of veto or personally decided the resources which were to be ordered. In effect, this could mean that something which was requested by the majority of teachers might not be bought because of the views of a member of the promoted staff. It was evident from the manner of the responses that strong views were held on this issue. Many teachers stated forcibly their belief that they should have an equal say in deciding what came into their department for their use.

> *The money is department money. Therefore, it's the department that should decide how it's spent and not just the Principal Teacher. In the end it's about power as opposed to authority. Schools encourage the wielding of power and teachers, as a group, like exercising it. It doesn't make sense for the one person who's least in the classroom to decide what the rest of us should have.*

This opinion was more prevalent in the secondaries where almost one in every two teachers (48.9%) reported that it was the Principal Teacher who decided everything. One could hardly pretend that the existing system to which reference has been made is democratically just but, nevertheless, it may be benevolent. It should also be remembered that the promoted staff do have financial responsibilities towards the schools and it is they who have to balance the books and look after everyone's interests. Furthermore, we had already noted that when a teacher asked for a resource to be purchased such requests were more than likely to find a positive response (4.4). However, having said all that, it has to be acknowledged that a great deal of ill-feeling engendered by this issue, which is perhaps the root cause of many teachers' complaints about resources in schools, could be removed if more places could adopt the formal voting or concensus arrangements which at present operate in the schools or departments of one in three of the teachers surveyed. In these cases everyone said that they felt they had an equal part to play in the decision-making process, and in the end they believed that justice was seen to be done in that the resources which were ordered for the teachers were those which the majority desired to be purchased.

4.9 *Sufficiency of resources.* Having discovered, thus, that many of the teachers interviewed did not agree with the ordering procedures in their schools we were particularly interested to find out whether they felt they had enough resources readily at their disposal in their schools. 42.0% of primary teachers and 31.3% of secondary teachers said that they had in contrast to 58.0% of teachers in the primaries and 68.7% in the secondaries who said the opposite (Table 59). It is difficult to assess how much significance should be read into these figures. Even allowing for the fact that the question, "do you think you have enough resources available to you?", was not directly asked — it would have begged the answer, "No", — there would still be a tendency for a negative response to any probe of this kind. On the other hand, a clear majority of teachers has said that they do not have enough resources at their disposal. If one accepts this at face-value and believes that resources are essential for good and successful teaching, one could therefore conclude that the majority of workmen in the classrooms are not being sufficiently supplied with some of the tools of their trade. If a builder is not supplied with the requisite amount of timber, can he adequately complete the house which he is constructing? If a teacher is not provided with adequate resources, can she perform the task for which she has been trained, a training for which our society has paid thousands of pounds?

4.10 *Changes desired by teachers.* The teachers are the people in the schools who decide whether or not to use resources, when to use them, how, and to what purpose. These decisions will be strongly influenced by their

knowledge of what is available and by their access to what is there. Therefore, any views which they may have on information flow, resource retrieval etc. are of major importance. So we solicited the opinions of the teachers on whether they wished change and, if so, which changes they considered desirable.

4.11 We found little doubt that teachers, both primary and secondary, have definite views on the changes which they would like to see taking place to enable them to have an easier knowledge of, and access to, the resources available to them outwith their schools. Only 10.0% of primary teachers and 12.0% of secondary teachers indicated that they wished no changes (Table 60). However, the fact that such a large percentage said that they wished changes does not necessarily mean that, therefore, they were all dissatisfied with the system as it exists at present. What it does mean is that teachers hold clear opinions as to what alterations they should like to see being made. Whether all, or any, of the changes are politically viable, financially permissible and educationally possible is another matter. We proceed now to examine and discuss these changes (Table 61).

4.12 The most popular request was for catalogues from resource centres, local and national, to be sent individually to teachers. 67.8% of primary teachers and 64.8% of secondary teachers said this was what they wanted. They commented that, until they had in their own possession and within their own classrooms detailed lists of what was available from every centre and instructions on how to order etc., they would never know exactly what was all available to them. The arguments against this being done are, at least, twofold; firstly, it would involve a vast outlay of time and money at the centres in order to prepare and update such documents; and secondly, it might prove to be a near-complete waste of time for, in the end, would the teachers read the catalogues let alone make use of them for borrowing purposes? A cynic might add a third argument, namely that to document fully the holdings of the various resources centres and make the catalogues available to all the teachers might result in such an increased demand being put on the resources services that they would be unable to cope with the orders. It is also often stated that schools are flooded with so many materials — from the local education offices, from publishers etc. — that teachers do not have the time to wade through it all. Why, then, add to the paper chase? This point can be rejected as far as this survey is concerned. Unpromoted teachers do not receive very much mail within the schools. It would be reasonable to assume, therefore, that they would be inclined to look at what they do get. It can be contended, of course, that in the delegation of duties within the school it is the Principal Teachers and/or the Assistant Head Teachers who receive those catalogues which are distributed. What the teachers here are saying is that the present system should be changed. Now, they themselves want catalogues or, at least, easier access to them. Also, the argument that teachers have been notified of what is available, regionally or divisionally, is not of direct relevance here in that this general notification about regional centres has obviously been relatively successful (3.7—3.24). What the teachers now say they require is detailed information on holdings, borrowing arrangements etc.

4.13 Another popular demand, from 46.7% of the primary teachers and 47.7% of the secondary teachers, was for some form of national information centre which could supply details of what was available in each of the regions as well as what was available at both the national and commercial levels. This included, but went beyond, what the regional resources centres, the CDCs, SCET etc. held. The view commonly expressed was that, when the teacher was looking for something on a particular topic, there was no place to which reference could be made, in order to acquire a comprehensive list of what was available on that topic, where it could be found, whether a hire charge was involved etc. The comments on the regional centres which provided information were largely that, although the staff were helpful, their knowledge was limited to local holdings and even then to what was available within the education sector. The creation of this "national information centre", the teachers believed, would fill the gap.

4.14 One of the main complaints of teachers was that they had difficulty visiting the nearest resources centres. Sometimes this was because of travel problems, e.g., distance and time; and more often than not it was a view expressed by women teachers, especially by women teachers with children of school age. They were unable, so it was maintained, to visit the resources centre immediately after four o'clock and then return home to fulfil their domestic duties. Obviously, home came first. The solutions usually presented were of two kinds. Firstly, there were calls for regular visits to the schools from resources centre staff. 35.6% of primary teachers and 23.9% of secondary teachers said that this was something they would like. It would permit them to become fully acquainted with what assistance was centrally at hand. Secondly, many teachers (21.1% of primary teachers and 19.3% of secondary teachers) requested that there should be regular in-service days for staff held within each school. These would help keep the teachers abreast of what the latest ideas were and would also ensure that everyone learned to handle the various items of audio-visual equipment within the school.

4.15 16.7% of the primary and 14.8% of the secondary teachers also believed that a local resources centre serving little more than a couple of dozen schools and having a divisional or regional resources centre as "back-up" would be of great value. This "network" solution appears very attractive and the fact that relatively few teachers stressed the need for local centres may seem somewhat disappointing. However, it must be remembered that many of the teachers interviewed would already be working near a resources centre and this could account for their failure to mention a local centre as a priority.

4.16 A sizeable percentage of teachers (34.4% in primary and 35.2% in secondary schools) made "other suggestions". The most frequent of these was that there should be panels, or individuals, who evaluated most, if not all, of the material which appeared on the commercial market. As was shown in Table 35(2.67), many teachers rely on the commercial catalogues for advice on purchases. It would appear that many items are bought straight from the publishers' descriptions and, in not a few cases, there is considerable disappointment. Therefore, it was the opinion of some teachers that a group, akin to the Consumers' Association and consisting of educationists, should be established with the sole remit of examining the software on the market and providing an evaluation for teachers.

"Other suggestions" presented were: — that schools should close early once a month to allow teachers to visit the local resources centre(s); that teachers should be permitted "de jure" to leave the school to go to the centres, public library, bookshops etc. without having to seek permission from their Head Teachers; that the resources centres, both regionally and nationally, should be held "legally responsible" for failure to inform teachers of the resources available to them.

4.17 The responses to this question (Question 50 in Appendix C) are among the most illuminating in the whole survey. They illustrate quite clearly the teachers' belief that they are not being fully informed of what is available to them in terms of resources and they provide the teachers' remedies to this situation. Our earlier findings (3.7—3.24) indicated that there are indeed many teachers who do not have contact with or knowledge of what the local centres have and that there are far more teachers of whom the same can be said in reference to the national bodies. The problem seems to be essentially one of information provision. The teachers are saying: "either create a system whereby we can visit the centres involved or let these centres be available to us through detailed catalogues, regular visits from their staff etc. because, at the moment, not enough of us find the present arrangement satisfactory."

4.18 We tested throughout this chapter to see if there were any statistically significant results when relating the responses received with the sex of the teacher, the region in which the teacher worked, and the experience of the teacher. We found only two cases where the χ^2 figure was significant beyond the level of 0.05 but we have commented on neither example as we believe they did not add to our overall knowledge.

CHAPTER FIVE

Training in Audio-Visual Techniques

5.1 *Introduction.* Our penultimate chapter looks at the teachers' opinions of the training in audio-visual techniques which they have received. The use of audio-visual hardware by a teacher is likely to be determined largely by the teacher's confidence in handling the appropriate piece of hardware. A teacher who does not know how to thread a film projector and is hesitant with machinery would seem to be less likely to use films as a teaching aid than a colleague who is totally confident in operating that item of equipment. Confidence is related to training and use; and clearly a lack of confidence can be overcome by an effective training course. Therefore, the training the teacher has received in audio-visual techniques, whether it be pre-service or in-service, is a vital factor in determining attitudes to resources and use of resources. Accordingly, we investigated the teachers' perceptions of both pre-service and in-service training and their confidence in handling audio-visual equipment (Appendix C, Questions 51-56).

5.2 *Pre-service training.* This phrase refers to the training which is given at a college of education prior to the student becoming a qualified teacher. We found that seven out of ten teachers, 70.5%, had received some training in the use of audio-visual hardware during their teacher training year(s), (Table 62). What about the remaining 29.5% of teachers? Why did they not receive any training? Age is a possible explanation. The first Scottish colleges of education to offer formal audio-visual training courses did not do so until 1964. Therefore, students who had trained prior to that year would have been fortunate if they had received any training. Secondly, eight of the teachers interviewed had received their training outside Scotland. Not all these teachers had attended courses in audio-visual training. Thirdly, it is quite possible for a student at a college not to have been in attendance at the times when training in audio-visual equipment was taking place. Many of the courses, even today, are optional. These figures are not, in any way, unexpected. It must also be remembered, as Butts has pointed out, that the training provision made for college of education students does not constitute the only form of training available.[1] Serving teachers have the further options of in-service courses offered both by the colleges and also by many of the regional authorities. Therefore, one cannot conclude from this evidence alone that some teachers have had insufficient training in the operating of audio-visual equipment.

5.3 However, when we examined the incidence of pre-service training against our three remaining controlling variables the one result which did show considerable statistical significance related to the teacher's length of time in teaching (Table 63). We found, not unexpectedly, that most of the teachers in Groups One and Two, having been recently at a college of education, had received some training in handling audio-visual hardware. However, of those who have been teaching ten or more years, only 28.6% indicated that they had received such training. Since a later analysis revealed that 12.2% of the teachers in Group Three had experienced any in-service training (Table 68) and since it is possible that some of that 12.2% are already included in the 28.6%, it means that at least six out of every ten teachers who have been teaching for a decade or more have never had any training in audio-visual techniques. This figure may well be even higher.

5.4 We then asked the 141 teachers who said they had received pre-service training whether this training in the use of audio-visual equipment, i.e., the handling of the hardware, had in their opinion prepared them adequately for the classroom. We requested them to grade their preparation on a five point scale and sought the reasons for their views.

5.5 In examining the findings (Table 64) it is worth keeping in mind two things: firstly, it can be argued, and indeed has been, that training confined only to the early part of a three or four year course may be largely forgotten by the time a student leaves college;[2] and secondly, courses which are not assessed (and this is the case with the majority of Scottish college of education pre-service courses in audio-visual techniques) may take a relatively low place in the student's order of academic priorities. Nevertheless, the fact that we found that 60.3% of the teachers to whom this section applies considered their training either "inadequate" or "very inadequate" cannot be a cause for satisfaction. Rather the opposite. Furthermore, another 28.4% only rated the courses as "satisfactory".

5.6 It would be wrong to condemn these courses to which we refer without further study. However, the opinions expressed by the teachers are of such a strong nature that we must confess to being unable at present to offer a satisfactory and detailed explanation for these views. Further analysis will be required of the teachers who stated dissatisfaction with their courses. However, there is no getting away from this present evidence. These remarks warrant serious attention. If a group of doctors commented that they had received at their medical schools inadequate training in the use of the electrocardiograph and various other diagnostic aids, would they be ignored?

5.7 The reasons which the teachers gave for their views varied. And since it was an open-ended question (Appendix C, Question 52) we grouped their comments ourselves. However, it is important to emphasise that we did not prompt for opinion but just asked why the teachers had said what they had said. The two most common remarks were that "there was little opportunity for operating the equipment" and "there was not enough time at the audio-visual sessions" (Table 65). 64.8% of primary teachers and 71.4% of secondary teachers made the former statement while 64.8% of primary and 68.6% of secondary staff the latter. Therefore, there seems little doubt that, as a result of their experiences in the classroom following training, the majority of teachers believe that more time should have been spent at their colleges on acquiring the skills and techniques related to the use of audio-visual aids and that a large part of the time should be devoted to *practical* training. The impression gathered from these findings that what is presently offered in terms of content and length of course is inadequate and insufficient. This interpretation goes a long way to explaining why 45.1% of primary teachers and 64.3% of secondary teachers said that they did not get training in all the types of audio-visual machinery and, consequently, felt at a disadvantage in their initial teaching years — and possibly later.

5.8 It is also worth noting at this stage that when we tabulated the comments which the teachers made about the courses with the length of time the teachers had been teaching we found that the only two statistically significant relationships referred to the above opinions (Table 66). The figures reveal very clearly that the most common criticisms made by the recent college graduates are that they did not have enough time at the audio-visual sessions and that there was little opportunity for operating the equipment. The Group One and Two percentages are similar whereas the cell figures for Group Three are too small to venture a definite opinion.

5.9 We also found that 26.8% of primary teachers and 42.9% of secondary teachers commented that "the audio-visual sessions were not regarded as important". We can only speculate as to why this view is held. It may be that because this part of their teacher training course may not have been assessed, therefore, the students dismissed it as being of relative unimportance. It could be that because audio-visual techniques are not "a form of knowledge" as identified by Hirst and Peters,[3] and are concerned with "knowledge-how" rather than "knowledge-that",[4] the student, reared in a conservative atmosphere of academic elitism and disdainful of a class that does not offer a distinct subject area in the way that mathematics, the physical sciences, religion etc. do, chooses to regard it as of little importance. It could also be that this impression is sustained by lecturers in other subjects and, thus, the student's views are strengthened. Perhaps it is that, because audio-visual material is regarded explicitly as an "aid" to teaching, the student teachers regarded the class merely as an extra, optional at that. Certainly the fact that 31.0% of primary teachers and 35.7% of secondary teachers stated that they did not appreciate at the time how important the acquisition of audio-visual techniques was would seem to indicate that, once in school and working on a full-time basis, they came to regard skill in the handling of audio-visual hardware as of more importance.

5.10 Our findings indicate that there was no explicit criticism of staff on the audio-visual courses. To us this seems unusual in that, when a course is condemned by students, we would expect personal comments to be made. None were. The only remarks about the training, which could possibly be seen as containing a slight element of implied staff criticism, were all of a non-personal nature. These were that "the equipment used during training at the colleges was different from that in the schools" (this was asserted by 19.7% of primary teachers and 21.4% of secondary teachers); that "the operation of the hardware was done in ideal conditions" (14.1% of primary staff and 10.0% of secondary staff said this); and that "the use of the equipment was frequently not related to the purpose of its use" (this view was maintained by 8.5% of primary teachers and 10.0% of secondary teachers). In examining each of these issues, it is worth keeping in mind the following points. It would be very difficult for any training course to cover all the various different makes of each particular piece of equipment. Colleges, we believe, concentrate on the more recent models and those which are most often to be found in our schools. It is noteworthy, however, that this comment was frequently made in relation to the "Banda machine", which is in everyday use by teachers in most primaries and secondaries. Therefore, it would be worth considering in future courses that emphasis be placed on the difficulties likely to occur with the Banda and that instructions be given on basic maintenance procedures. However, it is only right to point out that we do not know how much emphasis is placed on this aspect at present during training. The second issue, that the operation of audio-visual hardware always took place under ideal conditions, refers to the absence of pupils, unruly or otherwise. This is the so-called "audience factor". Only practice in the classroom can overcome nerves. However, confidence in one's ability to handle equipment and cope with elementary repairs, e.g., splicing a film, replacing a bulb in a projector, can be acquired at college if the teacher is given constant practice in the handling of machinery. The final comment, that the use of equipment was not related to the purpose of its use, is a somewhat separate issue, in that it does not apply directly to manipulative skills. It assumes a level of manual competence in the use of the hardware and asks the next question —"how and when is it best to use this item instead of that item in the learning process?"

5.11 *In-service training.* Having looked at pre-service training we now wished to examine the incidence of in-service training particularly since so many teachers had expressed discontent over the training they had received at their colleges of education whilst still students. The phrase "in-service training" refers to any training which the teacher received after becoming qualified. By "further training" we mean a formal course of instruction as opposed to informal advice, i.e., a course organised by a Principal Teacher or Head Teacher within a school, or by a regional authority or by a college of education. A casual lesson given by a colleague on a one-to-one basis is not regarded, for the benefit of this section, as "further training"; this is not to downgrade such advice but we were not interested here in such lessons but rather in formal courses.

5.12 Butts has found that on average during the period 1973 to 1978 only 150 teachers each year had attended in-service courses on audio-visual techniques organised by colleges of education.[5] He further concluded that "the list of in-service courses offered but not taken up suggests that teachers who complain of inadequate pre-service training have not gone out of their way to repair the gap". This indeed may be the case but we found that 18.0% of teachers have received formal in-service training in audio-visual techniques (Table 67). Given that a "gap" does exist, and the evidence from preceding and succeeding tables supports this assertion, one must ask whether it is, in fact, the responsibility of the teachers to "go out of their way to repair the gap". Why should teachers be expected to attend courses in the evenings, on Saturdays, during summer holidays — in order to remedy deficiencies in their original training caused by factors over which they had little, or no, control? The reason that so few teachers have received further training, when apparently so many of them require it, may not be the fault of the teachers. Many of the courses offered may have been held at times and in places unsuitable to the teacher. Of course, it may be that the teachers cannot be bothered attending such courses and are using timing and distance as excuses. However, if nothing is done, one must be prepared to accept the logical consequences of a situation when six out of ten teachers, who had received audio-visual training at their college of education, stated that this in-service training was either "inadequate" or "very inadequate", and where only 18.0% of the teachers interviewed had received any further formal training in audio-visual techniques.

> *I believe that attending such a course would be most beneficial to my teaching. Not only in order to get the mechanics of operating right but the "when" and the "how" of using audio-visual aids. But, firstly, I wasn't aware of these courses until you told me; and secondly, with the family, their timing's hardly ideal . . .*
> *My husband would go off his head if I announced I wouldn't be coming in to make the tea some night each week. You can tell it's men that are administrating the course . . .*
> *The responsibility lies mainly with the authorities. You're not telling me that they don't know most women can't operate the machinery, are you? They know it and they accept it. Don't kid yourself.*

5.13 And, in this connection, we established that the group of teachers who had had least training in audio-visual techniques in their teacher-training years also had had least in-service training (Table 68). We found that more teachers from Group Two, i.e., the group with six to ten years of teaching, than from the other two groups put together have attended in-service courses on audio-visual techniques. One would have expected the highest percentage to have come from Group Three since it is that group which has been teaching longest and which also contains by far the fewest teachers who had received pre-service training (5.3). The explanation for the fact that only 12.2% of Group Three teachers had received in-service training could be that many of the older teachers have family commitments and, therefore, have been unable to attend such courses. It could, of course, be that they have not been prepared to come forward for training out of a false sense of embarrassment. Whatever the reasons, it is evident that the majority of teachers with ten and more years of teaching experience have attended no formal training courses in audio-visual techniques.

5.14 Having discovered that there were just over one in four of the teachers interviewed (26.0%) who had neither received training in audio-visual techniques while attending their college of education nor had participated in any formal in-service courses once they had qualified, we wanted now to know how they had learned to use audio-visual equipment. We found out that the majority of the teachers in this situation either had learned how to handle the hardware by themselves (44.2%) or had not learned (32.7%) (Table 69). The reasons offered by the teachers who had not learned for their "failure" to learn were either that they had never felt the need to do so or that they were too embarrassed to ask for help.

> *Teaching is not about these gadgets. It's about children and making sure they can read and write and count and can make their way in the world. The teacher ensures these things. No amount of equipment will ever replace the teacher . . .*
> *It all frightens me. I just never use it. I'm too embarrassed to go and ask the younger teachers what to do. I've been here so long I feel I ought to know . . . I prefer to say that I like the old-fashioned ways.*

5.15 *Teachers' confidence in handling audio-visual equipment.* Having established how many teachers there were who had had pre and in-service training and how the teachers who had received neither had (or had not) learned to handle audio-visual equipment, we questioned our interviewees about their confidence in operating such items. As has already been stated, a vital factor in the use by teachers of audio-visual aids is their confidence in handling equipment. It does seem reasonable to assume that a teacher who experiences no difficulties in the operation of hardware is more likely to use resources more often than a teacher who lacks confidence in operating machinery. We asked whether the teachers felt confident in general in using audio-visual machinery. They were left themselves to decide what was meant by "in general".

Our results showed that more secondary (72.0%) than primary teachers (53.0%) felt confident (Table 70). We thought this might in part be explained by the sex of the teacher for it has long been the view of many senior practitioners of educational technology that women teachers are less likely than their male colleagues to use audio-visual aids because of a "fear" of the equipment. We, therefore, tested for this and found that whereas 83.3% of male teachers are confident using hardware in general only 50.8% of female teachers feel this way (Table 71). It is, therefore, the case that confidence in using audio-visual equipment in general is more closely related to the sex of the teacher than the type of school. For one reason or another only one out of every two women teachers feels confident in handling audio-visual equipment in general as opposed to more than four out of five men teachers.

5.17 One possible reason for the primary-secondary difference is that secondary teachers have more equipment at their disposal in their schools than their primary counterparts. This might have provided them with the opportunity to learn from colleagues. It is also worth remembering here that Table 4 (2.15—2.18) showed that teachers in primaries did not use certain items of equipment, e.g., projectors (cine, overhead and slide), as frequently as those in the secondaries. The reasons for this may have been lack of availability of hardware or an inadequate supply of software but it might also have been because of a lack of confidence. Certainly the fact that three out of eight teachers say that they do not feel at home handling audio-visual equipment in general creates the very strong possibility that three out of eight teachers are restricted by this lack of confidence in their choice of which resources they can use in their classrooms.

5.18 We also showed that the more recently trained the teachers are, the more confident they are in handling the hardware (Table 72). This reflects the improved quality of training now given at our colleges of education and the greater amount of time being spent on such work. However, it must be remembered that it was the young teachers who were most insistent that not enough time at college was given over to acquiring audio-visual skills (5.8).

5.19 We then asked if the teachers felt confident *using* all types of audio-visual equipment. It must be pointed out that we did not specify what we meant by "all types". It was left to the teachers to interpret. Therefore, some teachers may have regarded it as applying to all types of items; and others as applying to all types of items in their school. And, of course, not all schools had similar hardware. We found that only 17.0% of primary teachers and 28.0% of secondary teachers are confident in handling all types of audio-visual equipment (Table 73) which was not surprising in the light of the findings detailed in Table 70 (5.16). There is little difference between the primary and secondary sectors; and the conclusion that almost eight out of ten teachers do not feel confident in using every item that may be available to them raises once more the spectre that resources are being purchased which will be underused because of the teachers' lack of confidence in handling the hardware.

5.20 Once again we tested to see the relationships between confidence with all types of equipment against our three other controlling variables. Only that crosstabulation with the sex of the teacher showed statistical significance. We found that only one out of every ten women teachers believes that she can operate with confidence all the types of audio-visual equipment held in her school. The figure for the male is four out of every ten teachers (Table 74). It is, therefore, clear that this relationship is statistically more significant than that obtained when we co-related the teacher's confidence with all types of equipment with the type of school (Table 73). There is little doubt that in this area the sex of the teacher is the most important factor. Women teachers are considerably less confident using hardware than men teachers — for one reason or another.

5.21 Having made all these enquiries about the teachers' confidence in using audio-visual equipment we finally asked if there were occasions on which, because of an uncertainty in operating the hardware, they had decided against using certain resources.

5.22 We discovered that 79.0% of primary teachers and 58.6% of secondary teachers admitted that their lack of use of resources is because of a lack of confidence in handling the appropriate items of hardware (Table 75). What this, therefore, means is that software is being purchased by people in schools and by the regional authorities which will not be used by a majority of teachers because they lack the confidence to operate the accompanying piece of hardware. These comments can only be seen as an indictment of our training programmes. It would be out of place and wrong to try to attribute blame to one quarter or another but, clearly, a situation such as this demands swift and satisfactory remedies. Failure to provide these is merely to acquiesce in an educational system where tens of thousands of pounds are spent on audio-visual hardware (and software), which many of the potential operators, i.e., the teachers, lack the confidence to use and, thereby, deprive the pupils of learning opportunities which have already been paid for by the taxpayers.

5.23 We analysed further using the sex of the teacher as a controlling variable and found that 82.0% of female teachers and 45.1% of male teachers stated that their lack of use of audio-visual equipment was because of a lack of confidence in handling the hardware (Table 76). The statistical relationship here is closer than that with the type of school although clearly both relationships are significant. It is evident that for males and females the difference we have noted is not explained by differences between type of school and that the gender of the teacher is an important factor. Why this should be so is uncertain. One answer may be that there is something within the female that creates this lack of confidence. We consider that it is most unlikely it is innate and, therefore, the cause is more probably the conditioning created by the sex role which the woman has in Scottish life. She is not expected to operate equipment or machinery; and when asked to do so, initially does not feel confident. Unless the training is both thorough and efficient and unless the trainee perseveres, this lack of confidence may remain. Another possible explanation might be that women teachers received a different type of training while at college. After all, most of the female teachers interviewed were in primary schools and most of these had followed the Primary Diploma Course at college as opposed to the B.Ed. or the Graduate courses. Their training in audio-visual techniques must have been different in some way(s) from those attending the other two courses, and this might account for the findings. Butts made this point: "Training confined to the early part of a three or four year course may, through a process of retroactive inhibition, be largely forgotten by the time a student leaves college".[6]

5.24 Two further remarks are necessary. Firstly, because the teachers indicate lack of use because of lack of confidence, it does not, therefore, follow that they will never use the audio-visual equipment about which they feel uncertain. They may call for help, e.g., from another teacher or from an auxiliary or a technician. What is certain, however, is that they acknowledge that they do not use these items as often as they would do if they felt confident operating the equipment. In other words, this lack of confidence is restricting their teaching methods. Secondly, with

almost nine out of every ten teachers in the primary schools being women, it means that the primary school child will be more affected by this than the secondary pupil. It does not necessarily mean that the effect will be damaging.

1. D.C. Butts, "Teacher Training in Audio-Visual Techniques" (unpublished paper, Jordanhill College of Education, 1979), p.1.
2. *Ibid.*, p.2.
3. P.H. Hirst and R.S. Peters, *The Logic of Education* (London: Routledge and Kegan Paul, 1970), pp. 63-64.
4. P.H. Hirst *Knowledge and the Curriculum* (London: Routledge and Kegan Paul, 1974), p.57.
5. Butts, Teacher Training, p.6.
6. *Ibid.*, p.2.

CHAPTER SIX

Conclusions and Recommendations

6.1 The numbers in parentheses refer to paragraphs in the body of the report.

6.2 *Conclusions.* Two points must be made initially. Firstly, although many of the conclusions reached can be justified by the data obtained in our research, we have not restricted ourselves to those opinions which can be statistically supported. To have done so would certainly have lessened the risk of criticism but at the same time it would have prevented the fullest contribution being made in that as the researcher travels, listens and probes, so ideas and theories develop which can not be fully substantiated. Failure to present these notions (and failure to acknowledge them as being no more than "notions") is to sin by silence. Cochran et al.[1] commenting on the first Kinsey report said:—

> *We are convinced that unsubstantiated assertions are not, in themselves, inappropriate in a scientific study. In any complex field, where many questions remain unresolved, the accumulated insight of an experienced worker frequently merits recording when no documentation can be given. However, the author who values his reputation for objectivity will take pains to warn the reader, frequently and repetitiously, whenever an unsubstantiated conclusion is being represented and will choose his words with the greatest care.*

In this connection we do here once again stress that our conclusions are based on interviews with *unpromoted* teachers. We have accepted what they had to say at face value. Perhaps that has been naive but we think not. Also, it is possible that had we included promoted staff in our survey our results would have been much different — although we have no evidence for so saying. Nevertheless, notwithstanding those caveats, and mindful of the fact that every other teacher in Scottish schools is unpromoted, we believe these findings and our conclusions to be of importance and of value.

6.3 Secondly, we write at a time of local government expenditure restrictions. Scotland's education budget has been cut by £12.2 million in 1979-1980, which represents 1.7 per cent of the total local authority expenditure on education of £731 million. 1980-81 is likely to see further reductions. Therefore, the suggestions contained within this chapter are those which could be effected with little cost. There seemed little sense in advocating changes which, although sensible and arguably necessary, would fall on ears deafened by the continual clamour from Westminster and St Andrew's House for "belt-tightening" and "an acknowledgement of the financial facts of life". Installing in every Scottish school a computer terminal, a telephone and an acoustic coupler to provide access to BLAISE (the British Library Automated Information Service) would provide teachers with easy access to resources information, but what of the costs — initial and continual? An area resources centre for every two/three dozen schools or covering a fifteen/twenty mile radius would be similarly ideal, but again where would the money come from? And who amongst us is brave (or foolish) enough to demand this at a time when some schools run short of writing paper by mid-session? Accordingly, our recommendations are made with an awareness of the surrounding financial darkness. Not for a moment do we believe that our proposals provide the best solutions to our problems but they do reflect some of the best ways of plugging gaps at a time when a major overhaul seems impossible.

6.4 That gaps do exist within the educational system will have become apparent to anyone who has studied the earlier chapters. It is these gaps which prevent the teachers in the classrooms from making as much use as they would wish of resources. Our aim, therefore, is to identify closely the gaps and to recommend actions, appropriate and feasible, which will fill these chinks which have been discovered. For the benefit of ease of expression, these gaps have been identified as follows — the provision gap, the access gap, the communication gap, the credibility gap and the confidence gap. It is, therefore, proposed to examine them individually.

6.5 *Provision gap.* Clearly within the schools differences in the level of provision exist. Secondary teachers generally are better off in terms of audio-visual equipment than primary school teachers and have more visual software. It is also evident that secondary teachers make much more use of visual resources than their primary counterparts but the opposite is true on the audio side (2.17—2.19). Whether one considers this as indicating "gaps" is open to debate, but the fact that some schools, particularly primaries, in comparison with their counterparts are clearly less well-off for hardware and software can not be explained purely in terms of school roll, "per capita" allowance etc. However, it can be argued that such gaps will always exist in that in some areas one school will always be "better" off than another because the second school does not ascribe similar priority to those items to which the first school attaches primary importance.

6.6 *Access gap.* By "access gap" we mean the problems which occur once the teacher has decided that he/she wishes to use during a lesson a *particular* piece of hardware or software which is known to be available. This gap exists both within the school and without. Within the school the gap would not exist if every room contained every item of audio-visual equipment and if every school had an internal retrieval system guaranteeing acquisition of the necessary book, film strip, wall chart or whatever within a few minutes. Both of these utopian situations, however, are at present totally impossible. Therefore, one is left with the conditions of today which dictate that nearly all teachers will have to go beyond their own classroom walls into the corridors, down the stairs, perhaps across the playground, frequently frosted or wildly wet, to try to get, not necessarily to get, an item considered necessary to help their pupils' learning process. Other problems may arise. Legally, the teacher should not leave the children unattended. Who then picks up the projector if timetabling demands the teacher's classroom presence from 9.00 a.m. to 4.00 p.m. (breaks excepted)? This may seem a small and insignificant point, but those who think so should ask themselves when last they taught for years on end in schools where today's children sit. It was emphasised over and over again by teachers in our interviews that practical difficulties in getting hold of a particular item prevented more frequent use of audio-visual items. A minority of teachers — just over one in every four — said that they were not fully aware of all the resources which their school held (2.59) but there were far more teachers — and we have no figures to offer in support of this assertion — who said that they couldn't use certain pieces of equipment because they were seldom to be found in the central or departmental store or because a colleague regarded the item as his "personal property" which rarely, if ever, left his classroom. Finally, understandably, the teacher just gives in and decides to make do with what is easily to hand. They should not be condemned for this. We all of us have limits to our determination and our willingness to struggle against systems designed in theory to aid but operating in practice to frustrate and disillusion. Until the access gap is lessened — it will only be completely closed when the utopian situations described earlier are created — one can not expect the resources in our schools to be fully utilised. No matter how much one regrets this, it must be accepted.

6.7 There is a similar gap beyond the school. It exists between the teachers and the central resources organisations, divisional, regional and national. There are many aspects to the gap, some of which apply to only a few teachers, others to all. Firstly, there is the practical problem of how to get to the local resources centre to find out what is there which might be of use. For many teachers this quandary does not exist for there is no local centre and sometimes no divisional or regional centre. But for those teachers living in better-endowed areas this can be a major problem. Not all the local resources centres issue catalogues. Therefore, in order to find out what is there a teacher has to go and see. To most centre administrators, well-intentioned but somewhat lacking in an understanding of the teachers' difficulties, this visit should present no problems. Their answer, apparently correct, is to keep the resources centre open for an hour or so beyond school closing time and to open it on an occasional evening. Without having figures to hand, it can be confidently asserted that most administrators and those who take decisions relating to resources policy are male, own their own car and are not responsible for the major share of domestic duties. How does the solution they present — which, on the face of it, is sensible and valuable — help the teacher who uses public transport, who has a home to run to which children are returning shortly after 4 o'clock and who is responsible for preparing the evening meal for the family after a full day's teaching? John Keats wrote: "nothing ever becomes real until it is experienced." It would be interesting to find out if the administration, including opening times, of the resources centres would remain the same if the administrators experienced the life style of the teachers for whom these centres have been established. Let our argument not be mistaken. We are not contending that the resources centres should be closed at 4.00p.m. What we are saying is that to expect all teachers to use these centres at the end of the working day is being unrealistic and is asking too much of the teachers. Why can they not use them during the day? Or, if they can not get to the centre during the morning or afternoon, why can the centre not be taken to them? That should not be as difficult as it sounds if a "resources centre is . . . a state of mind"[2]. To too many teachers in Scotland, the central resources centres of their region and beyond seem, and often are, too distant — almost certainly in an abstract sense but quite definitely in a practical sense. Not enough teachers get to them and too few know what is there (3.23). To argue that the system as it is should be maintained is to opt for mediocrity. To adopt Falkland's attitude that "when it is not necessary to change it is necessary not to change" in the light of our findings is a vote for continued deprivation. It is too bland an excuse to say that the teachers *ought* to come in before tea time or during an evening. There are many teachers who can *not* come at these hours. Failure to accept this will leave the centres in an educational graveyard with apathy and conservatism as their twin headstones.

6.8 Another factor featuring in the access gap is finance. Many of the resources held by national centres, e.g., the CDCs, SCET etc., cost the schools to use, be it loan or purchase material. Even if they do not cost money, they will cost the teacher postage to borrow. For example, hiring a film from the SCFL which is free will involve a stamp in excess of £1.00. The money is simply not available in the schools to do this. Or perhaps it is rather that it does not seem to the teachers to be there to do this. It is certainly there, however, in the educational world beyond the school gates. There are not a few people in Scottish education today who are employed by local and national authorities who travel first class on British Rail, who lunch from the education budget and who may even have chauffeur-driven limousines at their disposal. We, the taxpayers, provide these services. Does it make sense, practical and moral, so to do when schools, pupils, ancillaries, teachers, cry out in need? Which is better — that the SCFL issues only a few free films to the school and has to charge postage on these? Or that first class travel should be available to people in certain positions in education? The teachers maintain that they are not using resources because they believe the money to hire/purchase resources is not there in the nation's education budget. They are mistaken in this belief. The money is there — at least, in part. It is just that it is being assigned to other purposes.

6.9 One final facet of the access gap must be noted. Most teachers say they do not prepare in detail their lessons weeks ahead. It is not a case of them "taking no thought for the morrow for the morrow shall take thought for the things of itself" rather it is that they have little time to sit and plan exactly what it is they will be doing with each class a fortnight hence. Accordingly, it is not infrequent for them to be in a position where they decide they want a film strip on a particular subject which they know is available from the regional resources centre and they want it within a few days. They may telephone the centre. The film strip may be to hand. But because there is no delivery service from the centre or because the centre van has a pre-planned route or because the teacher can not collect it from the centre, the film strip remains on the shelf. The lesson is taught without that particular aid. The teacher next time hesitates to call the centre. He passes on the tale, sometimes embellished, to colleagues. The centre is thus branded as being "uncooperative" and "of limited value". These stories abound — even in areas, e.g., Grampian and Lanark, where excellent and regular delivery services to schools exist. Is there anything can be done to plug this gap? Do the teachers in fact know whether a van service exists? If one does exist and if the teachers do know of it, are they aware of its collection day at their school?

6.10 *Communication gap.* It is almost impossible to overstress the importance of a good communications system within and without the school. Teachers can not consider using resources which they do not know exist and are available to them. It is therefore crucial that they should be fully informed of what is there for them to use. Once again the gap can be said to have two aspects, internal, i.e., within the school, and external, i.e., beyond the school. We have found that one in four teachers are not fully aware of the resources dealing with their own area held in their own school (2.59). The two main reasons which they give for this are that no lists exist of the resources which the school holds and that they have come across other teachers using resources which up until then they did not know the school owned (2.64). It is also clear that hardly any schools in the country are seen by the teachers to have a resources network which would enable the teachers to find out what resources were available to them (2.66). The school librarian, where such a post exists, is evidently not viewed as a disseminator of information which is something which many of the recent educational reports hoped would happen. One obvious way to acquaint the teachers with what is held in their schools is for each school to issue a catalogue (or list) of its holdings. We did not ask the 200 teachers interviewed whether their school or department issued them with such a list but a survey of schools considered to have resources centres discovered that less than half of these schools did issue lists of their holdings.[3] Now, given that this was a survey of those schools believed to be committed to resource-based learning and given that an integral part of that educational philosophy is that teachers should be kept fully informed of all resources available to them, this seems a rather small figure and would seem to confirm our view that the practice of issuing lists of school resources is not common in Scottish schools. When one further takes into account the casual and somewhat haphazard manner by which many teachers learned of the existence of the school's central and /or departmental stores (2.29—2.34) and the incidence of non-book resources held by individuals (2.35), it is fair comment that the internal communication system in many of our schools leaves much to be desired.

6.11 Beyond the school there exists another aspect of the communication gap, namely between the teachers and the central resources centres at divisional, regional and national levels. The majority of teachers whom we surveyed had heard of their local resources centre and SCFL. However, it was a minority who were aware of the CDCs and SCET (3.9—3.11). Only a bare majority of our interviewees had ever been contacted, directly or indirectly, by their regional resources or teachers' centre, and less than one in every two teachers had been contacted by their divisional or local resources or teachers' centres, by an education authority adviser, by the School Library Service, by the CDCs, by SCET or by a college of education (3.14—3.22). In some of the latter cases the figure is considerably lower than one in every two teachers (Table 45). It is also very clear that less than one in every two teachers knows what these places hold (3.23). Now, it can be argued that the teachers to whom we spoke were all in unpromoted positions and they, therefore, were less likely to see material arriving at the schools than their principal teachers etc. It could even be the case that some of the resources which these same teachers used and believed to be owned by their own schools had, in fact, been borrowed by a promoted teacher from a central resources body. We concede these points. But they do not affect the facts as we have presented them earlier in this report (3.7—3.31). These facts show very conclusively that unpromoted teachers do not all know about the central resources available to them.

6.12 Another point is worth stressing. Communications are sent out from the regional and national centres to the schools in order to inform the teachers what services, resources etc. are available. Our survey has revealed that many of the teachers — albeit unpromoted — do not see these communications. Who then within the schools does see these circulars, lists etc. for it does seem reasonable to assume that they do get to the schools? Where then is the communication bottle-neck in the system? The short answer is that we do not know. However, a questionnaire of school resources centres did discover one rather surprising fact. Almost one out of four of the schools said that they did not receive catalogues from other educational bodies.[4] Now, it is to be conceded immediately that the respondents to that survey may have defined "catalogue" in the formal meaning of the term. They may not have equated them with lists or general information papers about holdings. However, if one for the moment rejects that interpretation, one is left with the conclusion that even people in senior positions with responsibility for resources in one out of every four of our schools which were believed to have had resources centres did not see any catalogue from any other educational body. If that is so, and we offer this possibility with extreme caution, the communication gap may be more complex than originally surmised.

6.13 Finally, it must be noted that not only is there limited communication within schools, and beyond schools between teachers and central resources services, there appears to be very few schools which have links with other schools. Our interviews with teachers showed that, although one in four teachers borrowed items from other schools,

almost three out of every four who did this did so primarily because they knew another teacher at the school concerned and from that person had learned that the school held resources which could be of use to them (3.3). Teachers, it appears, when they do borrow from other schools initiate the process, not because they have lists of the other schools' holdings, but because they are in need of help and are scouting around asking friends and neighbours for assistance. It can hardly be described as the most organised of approaches and represents an indictment of our educational system as it stands at the present.

6.14 *Credibility gap.* This gap refers to the view which many teachers expressed of the value, or lack of value, of many types of resources, particularly audio-visual items. The questioning of the worth of audio-visual software came almost entirely from secondary school staff and was particularly common amongst those teachers with responsibility for certificate classes. As one young teacher put it:—

> *We have so little time. Everything is rush, rush, rush, in order to complete the "Higher" syllabus. We simply can't afford to indulge in the nice extras of tapes, films and video-cassettes. These things are a luxury. My job is to make sure the kids know the facts. Besides, the exams are done with pen and paper so that's the media in which we've all got to work and concentrate. If we had to hand in a school-produced tape-slide presentation in May to the SED instead, that'd change things. It'd be quite different. But as long as the exams are the way they are and as long as time's short, I'll not be changing my way of teaching. My duty's to those kids out there.*

This is an argument with which few teachers would disagree and it succinctly states the disadvantages under which audio-visual items have laboured for so long, disadvantages which in part are of the making of their proponents. Such resources have been seen as "aids" not as "essentials". "Audio-visual aids" is still an everyday term in school and its continued survival and constant use merely serve to confirm its limited status. Walton made this point when he said that audio-visual aids tended to be "additive" — frills rather than necessities.[5] He also stated his belief that these resources were becoming "integrative", i.e., essential in the teaching of the lesson. However, his evidence for this view was slight and amounted to little more than a personal opinion based on feeling and intuition. Walton's distinction has been echoed by Witkin who showed that ease of access to a resource did not necessarily mean that the resource would be used by the teacher. Until the teacher became convinced that the resource was a necessity, Witkin believed that it would be used only occasionally.[6]

6.15 There seems little doubt from our findings, which admittedly we are unable to quantify, that most teachers regard audio-visual items as "additive", to use Walton's phrase. They are not viewed as essential to the learning process by the teacher but are thought of as a pleasant extra which can be quickly rejected should time prove short.

6.16 *Confidence gap.* By "confidence gap" is meant the attitude of mind of the teacher towards using a certain piece of audio-visual equipment, the successful operation of which is necessary to ensure the learning process may begin. There can be little doubt that the confidence a teacher has in handling hardware affects his (or her) use of it (5.15—5.24). It is also very evident that there is a large number of teachers who admit that they do not use certain items of audio-visual equipment because of this lack of confidence. In other words, their teaching methods are restricted by this uncertainty. 82.0% of female teachers and 45.1% of male teachers admitted this.

6.17 These teachers may be said to be in a similar position to a man wishing to travel from Glasgow to Aberdeen. He may make the journey by a number of ways — walking, hitch-hiking, cycling, travelling by car or train, flying. But if he has no money, and if he can neither ride a bike nor drive, his choice is limited to the first two alternatives, one of which is dependent on the goodwill of other. In the same sense, a teacher wishing to take a class metaphorically from point A to point B has a variety of choices. The objective of the journey is not Aberdeen in this case but may be to ensure that each pupil knows five causes of the French Revolution or can detail the main stages of the digestive process. The choice of route here is not between road, rail or air, but more likely to be talk 'n' chalk, reading a book, a tape-slide presentation, a film or whatever. But if the teacher is uncertain how to operate the Kodak Carousel for the tape-slides, or if the teacher believes that he can not work the Bell and Howell cine projector, then, like the traveller to Aberdeen, the method by which the class is taken from A to B has been decided. It will go via talk 'n' chalk and /or by reading. Such a journey is unlikely to be injurious to any pupils, although it may be dull and somewhat predictable. But if many people will choose this method, is it sensible to have items, software and hardware, lying about in a school when 82.0% of the female teachers and 45.1% of the male teachers acknowledge that they will not use certain of these resources because of a lack of confidence?

6.18 What then are the remedies to the present situation, for it must be evident to anyone who has studied Chapter Five of our report that remedies must be sought and found? Given that the majority of teachers — and the figure is almost three in four of all unpromoted teachers — has this uncertainty which results in their not using certain resources, there seems to be two logical solutions. Firstly, either the training in audio-visual techniques, both pre-service and in-service, should be revised and expanded in order to ensure that the present problems are totally eradicated. Or, secondly, the schools should cut down on their spending on audio-visual software and hardware on the grounds that such purchases are not cost-effective in that many teachers admit to not using many items. Now, to adopt the former policy would involve a re-organisation of the time allocated to audio-visual training within the colleges of education and a possible re-styling of the colleges' courses in audio-visual techniques. It would also mean the education authorities committing themselves to extensive in-service work of a very practical nature. On the other hand, failure to do so is to condone and perpetuate the failings of today which permit teachers to graduate from their training colleges unable to work certain pieces of hardware and allow them to continue similarly unskilled throughout their working life and thus condemn children to the possibility of extensive hours of talk 'n' chalk. There can be no

arguing with the fact that many of today's teachers clearly need help in terms of in-service assistance nor with the fact that many recent graduates believe that the course in audio-visual techniques at college requires revision and extension.

6.19 The alternative policy to these proposals (apart from the obvious one of doing nothing) would be to cut back on all audio-visual spending. We reject this. It is a prescription for educational disorder. "Chaos", as Othello said, "would come again." The TV tribal children, beloved of McLuhan, would rise up and reject their staple diet of teacher-soliloquies and standard textbooks. One, therefore, is left with no alternative but to change and thus ensure that the teachers all can handle audio-visual equipment confidently and will thus not reject software for fear of hardware. No other solution can satisfactorily plug this gap.

6.20 *Recommendations.* The recommendations which are made in the succeeding paragraphs have not been placed in order of priority, but follow a pattern of thought. We asked firstly what can be done within the schools to help; secondly, what can the regional and national resources centres which do exist do to help; next, what can the regional education authorities as distinct from their resources centres do to help; then, what can the colleges of education do to help; and, finally, what general ideas can be of help. Education is a co-operative industry. "Help" is the keyword — from the teacher in the classroom helping the pupil through to the help offered by the resources centres' staff, by the members of the Directorate, college of education lecturers, HMIs etc. No one in education is an island entire of himself. We depend on each other and in times of hardship our dependence one on another is at its greatest. If we do not listen to the appeals for assistance, we fail. Simone Weil wrote that "where there is need, there is also an obligation". If we ignore the pleas of the teachers which we have noted, we risk the triumph of mediocrity. Victory may then go to the prophets of doom, the inverted Micawbers of the educational world. Therefore, it is in this light that we make our proposals. They are designed solely to help and to help the teachers in the school do their work a bit more easily and perhaps a bit better than before.

6.21 However, having said all this, we must again emphasise that this research has been done at a time of financial difficulty and stringent cutbacks. Therefore, our recommendations are low-cost and patchwork solutions. We do not regard this report as a statement of all that we believe ought to be done rather a summary of that which we consider can be attempted amidst today's restraints. G.K. Chesterton said many times: "some men see things as they are and say 'why?' I dream things that never were and say 'why not?'" We have not allowed ourselves to dream in this report but we believe that the implementation of our proposals may prevent a nightmare situation.

6.22 The following, therefore, are our recommendations:—

(1) There should be mandatory staff meetings at departmental level in all schools to discuss and decide upon the purchase of all book and non-book resources. Decisions should not be taken by one person but by a democratic process with each departmental member having an equal say in the selection of items. This would avoid the resentment which does exist among many unpromoted staff (4.7—4.8). It would also make certain that justice was seen to be done. And finally, and perhaps most important of all, it would ensure that the school would be more likely to hold resources which were the choice of the majority of teachers; and this, in turn, would go some way to guaranteeing that the resources purchased were likely to be in frequent use.

(2) All departments should keep a list of all their book and non-book items. Such a compilation could be made annually with very little difficulty if one school day in the year was set aside for this purpose. Each teacher would be required to detail everything within his classroom which was school property and to enter it upon the resources list. If it was not normal practice to keep these resources within a departmental or central store, then the list should contain information as to where the item was held. Once this list has been compiled, it should be reproduced (even if it is just hand-written and "Banda-d"), and copies issued to each teacher within the department, to the Principal Teachers of all other departments, and to the school librarian if such a post exists.

(3) Once these lists have all been prepared they should be held centrally by one member of staff who is seen as having responsibility for resources. That staff member may be the school librarian or may be a teacher already holding a promoted post or may be a volunteer. The name of this person should be circulated amongst all those with resource responsibilities both within the education authority and beyond to the national resources centres. To that person should fall the responsibility of classifying the material and preparing a school catalogue of all the resources held departmentally. Size may prevent the issuing of this central catalogue but the person must let every teacher within the school know that a central catalogue exists and is available for consultation for it is clear to us that teachers want and need this (2.39).

(4) Concern was expressed by many teachers over difficulty of access to stores, be they departmental or central (2.40). It is recommended that the keys to all these stores should be held by the janitor, the school secretary and all senior staff above the position of departmental head. All teachers in a department should have keys to their own departmental stores. Where access to a store is only through a classroom, we believe that the final five minutes of a period should be regarded as a "clearing time" for the return and uplifting of items. Pupils should be used for this purpose. It will develop confidence and encourage responsibility while at the same time there will be little risk of damage to resources, software or hardware, as the thoroughfares of the school will be traffic free at that time. These last two proposals relate mainly to secondary schools. Primaries, which do not have subject periods in the same way, tend to be run in a more casual way and their size helps to ensure efficiency.

(5) All schools should have a "resources noticeboard" reserved for notices referring only to resources. It would display information about the internal resource organisation within the school and would provide details about divisional, regional and national centres. It could also acquaint teachers with the times of delivery and collection by the regional resources van (where one exists), with links with any other educational organisation, e.g., adjacent schools,

museums, colleges of education. The upkeep of this board would be the responsibility of the member of staff with the resources remit who would receive all resources communications sent to the school.

(6) Those teachers working in areas which have a divisional and/or regional resources centre should be given discretionary leave of at least one-half day or one day every term to visit their local centre. In those areas where the distance in miles from school to centre may be high, for example, the Argyll and Bute Division of Strathclyde, Grampian and Tayside, it is recommended that the far-off schools close for a day and a coach be hired for the trip. This would acquaint the teachers with what is available for them to borrow, something that clearly needs to be done (3.23—3.24). It would also test the theory advanced by many resources centre staff that the teachers who come in to the centre to see for themselves keep coming back again; and that, therefore, the basic problem is, in fact, getting the teachers into the centres in the first place.

(7) It is very evident that the information flow between divisional and regional resources centres and the schools and teachers must be improved (3.7—3.26). To this end staff visits should be made from these centres to the schools within their catchment areas. The evidence is overwhelming that the majority of unpromoted teachers is unaware of what these centres hold that would be of advantage to them and of the activities of these centres. It is our belief that this state of affairs must be remedied. Failure to do this would be an acknowledgement of complacency and an acceptance of mediocrity. Therefore, although we affirm that the resources centre staff are already under great work pressure, we believe that it is necessary that they undertake missionary activities in order to inform the teachers in the schools of their existence and their services. Teachers can not use facilities which they do not know exist. Knowledge is a pre-condition of use. Therefore, we recommend that the staff in the divisional and regional resources centres arrange visits to the schools within their areas, either individually or in groups, in order to communicate personally with teachers to make them better informed of the work of the centres.

(8) Although the links between divisional and regional resources centres and the teachers are poor, those between the national centres and the teachers are worse (3.7—3.26). Yet at the same time one cry for help from the teachers was for a national information centre (4.13); and an information service is something which is offered by all the CDCs and SCET. Meetings, therefore, ought to be held between the SED, the CDCs and SCET, the regional authorities and other interested bodies to examine the feasability of establishing such a centre. The value of access to BLAISE has been noted earlier (6.3) but such a system is too costly and ambitious at present. Therefore, we propose an examination of the possibility of establishing a national information service for primary and secondary teachers to which all teachers and schools would have easy access, e.g., by FREEPHONE.

(9) Although the CDCs and SCET are engaged in many areas of educational work other than the supplying of resources and resource information to teachers, we believe that insufficient attention is paid by them to the needs of the classroom teacher who is often ignorant of their existence and, when not, makes little use of them and seldom knows of what assistance they can be. The CDCs and SCET should, therefore, take steps to remedy this. They should combine forces to launch an "advertising campaign" amongst the teachers to let the schools know that they are there, that they can help, and that they want to help. It could take the form of a deluge of posters and information leaflets; it could involve attendance at in-service courses organised by colleges and education authorities with a view to self-promotion; it could entail individual letters to individual teachers; it could even go as far as seconding staff to send them on "advice visits" to schools when teachers could be addressed in groups. What is evident is that, if the CDCs and SCET see themselves as national resources centres in the full meaning of that term, teachers should be informed of this in order that they can make use of them.

(10) Almost three times as many teachers know of the existence of SCFL as do of SCET (3.11). Yet SCFL is but a part of SCET which also has various other services of aid to the teacher. Therefore, the title "Scottish Central Film Library" should be gradually faded out to be replaced by that of "Scottish Council for Educational Technology" in order that the teachers may come to know the parent body and, therefore, its other activities better. To maintain the present dichotomy is to bolster a division which is unnecessary and unhelpful to the teacher.

(11) The preparation of a printed catalogue by a resources centre, be it divisional, regional or national, takes not a little time. There are many who have indicated that they doubt the value of these catalogues. Nevertheless, it is clear to us that they are something which the teachers feel would be of aid to them in their schools. The evidence for this is telling (4.12). We, therefore, consider it beholden upon each resources centre to produce a catalogue detailing its holdings, providing information about loan periods, delivery methods and times etc. If possible, multiple copies should be distributed to each school which the centre serves. Where this is not possible at least one copy should be sent to the teacher with responsibility for resources. A poster giving details of the catalogue, and with a space for the local teacher to fill in where it can be consulted in the school, should also be prepared for display on the resources noticeboard. We accept the view that teachers do not read catalogues. We believe, however, that they consult them.

(12) All the resources centres should operate a delivery service — even if it be on the most casual basis relying on Advisers, pupils etc. for assistance. Two areas with impressive resources organisation, Grampian Region and the Lanark Division of the Strathclyde Region, place great emphasis on a speedy, efficient delivery system. Unless the teachers can get what is required, preferably when it is required, it is of limited value. It is a mistake, even in urban areas, for the administrators to assume that most teachers can easily visit the regional resources centre and pick up what is required. Therefore, if they can not get to the centre, the centre must go to them.

(13) All resources centres, divisional, regional and national, should ensure that they have the name of the "contact" man (or woman) in each school with the responsibility for resources. This is of vital importance — that the communications going out from any centre should be personally addressed to the one individual who will then have the responsibility of disseminating the information throughout the school. Clearly, the success of such a system will be dependent upon the enthusiasm and effort of that individual but a blank resources board will tell its own tale.

(14) Those regions which, for the best of reasons, have been unable to establish regional resources centres of their

own should make every effort to set up an information centre for their area. This centre which could be based within one of the larger secondaries would concentrate on holding information not materials. It would provide details of all the items software and hardware — held in the schools throughout the area. These particulars would be provided by the member of staff in each school with responsibility for resources. The reasons for this type of operation would be twofold: firstly, the problem of how to transport the items would be side-stepped and remain with the potential borrower; and secondly, the major item of expenditure in any such centre — staffing — could thus be considerably reduced. Only one qualified librarian need be employed at such a centre.

(15) Teachers within each region should be kept fully informed of how their region organises its resources for primary and secondary schools. To this end booklets should be prepared by each region giving full details of the services and help available. These should be distributed to every teacher. They should also be automatically distributed to every new teacher within the region, be the teacher a probationer or not. Annual meetings for all new teachers should be held, preferably at the regional (or divisional) resources centre, to provide verbal back-up to the literary material already circulated. Resources information should form a major part of these meetings to which subject Advisers, representatives of the School Library Service and members of the regional and national resources centres staff should be invited.

(16) There can be no doubt that a massive programme of in-service training in audio-visual techniques and basic maintenance skills is necessary (Chapter Five). It is clear that all groups of teachers, but particularly women and older teachers, require to gain confidence in handling hardware. In the urban districts these courses should not be too difficult to organise. However, in the rural areas of our land it may prove more difficult. Therefore, the authorities should give consideration to organising school-based in-service courses, possibly aided by the national resources centres and the colleges of education (4.14). It would probably be easier, financially more sensible, and educationally more valuable for one or two experts in turn to take ten days or a fortnight touring in a region in order to keep the teachers fully informed of what was available to them at all levels and to ensure that the teachers could handle all pieces of hardware held at their schools. Teachers who attend such courses should be responsible for organising similar courses within their own schools.

(17) All members of staff who are given responsibility for resources within their school should be required to attend an in-service course for one or two days on cataloguing and classifying procedures organised by each region's School Library Service staff. It would be helpful if these courses could conform to a national pattern. This training would be necessary in order that the catalogues of the schools' holdings be prepared. This is, of course, part of the work of a librarian. However, since we are far from the situation of having a librarian in every school, we recommend this as a temporary, inexpensive solution to the problem of how best to inform the teachers of everything which is held in their school.

(18) We should consider it ideal that once primary schools have compiled a central catalogue of their resources a copy of this catalogue should be forwarded by all feeder primaries to their parent secondary. Primaries should eventually be able to compile such a list. The holding of these lists could lead to the eventual building of a network with the member of staff in the secondary school with responsibility for resources distributing lists of the holdings of all the feeder primaries amongst these schools.

(19) The colleges of education should re-allocate more time to the pre-service training of teachers in audio-visual techniques. They should ensure that basic handling skills and fundamental maintenance techniques are taught and examined. Every effort should be made to make certain that the equipment used in the colleges in the instruction of the student is similar to that held in the schools. Particular attention should be paid to those pieces of audio-visual equipment which all schools hold and to the problems associated with their use. That teachers should learn how to operate a television camera or prepare a tape-slide presentation is important, but it is secondary to their being able to effect simple repairs on a Banda etc.

(20) Colleges of education should arrange visits for to all nearby resources centres and should provide all students with a national list of such centres.

(21) Concern has been expressed over the teachers' attitude to audio-visual resources. The teachers tend to view them as frills rather than as essentials and consequently under-use these items (6.14—6.15). This attitude will only be altered through time when the teacher realises that the adoption of a multi-media approach can aid the learning process. Therefore further research should be undertaken to establish the value of such an approach when compared with more traditional methods. Until the teacher becomes convinced that audio-visual items are as an effective aid, or even a better aid, to learning than the written word it is unlikely that they will be fully utilized in our schools.

(22) Note has been taken of the many teachers who make use of commercial catalogues to decide what resource to purchase (2.67; 2.73). It was also observed that the resources purchased from catalogues frequently turn out to be "disappointing" and "not what we expected". Remarks were also made by many teachers that there should be an evaluation of most, if not all, of the material appearing on the commercial market (4.16). To this end, it is our belief that subject panel ought to be established under the auspices of the CDCs to do this work. Their remit would be to act as a consumers' watchdog, an educational "Which?", to provide comment, summary and general evaluation of all the material aimed at the primaries and secondaries. Their task would be to recommend what they consider to be the "best buys". This would be helpful to the teacher and would prevent money being wasted. Such an exercise need not be expensive. There are many experienced teachers recently retired who could form such panels. Communications could be by post or telephone with meetings (and, therefore, expenses) kept to a minimum. It would require but one organiser/chairman for each panel and the administrative work could be done by the appropriate CDC. Similar viewing panels to advise on film purchases for SCFL within SCET could be established. Circulation of the panels' opinions amongst schools would be the responsibility of the CDCs and SCET.

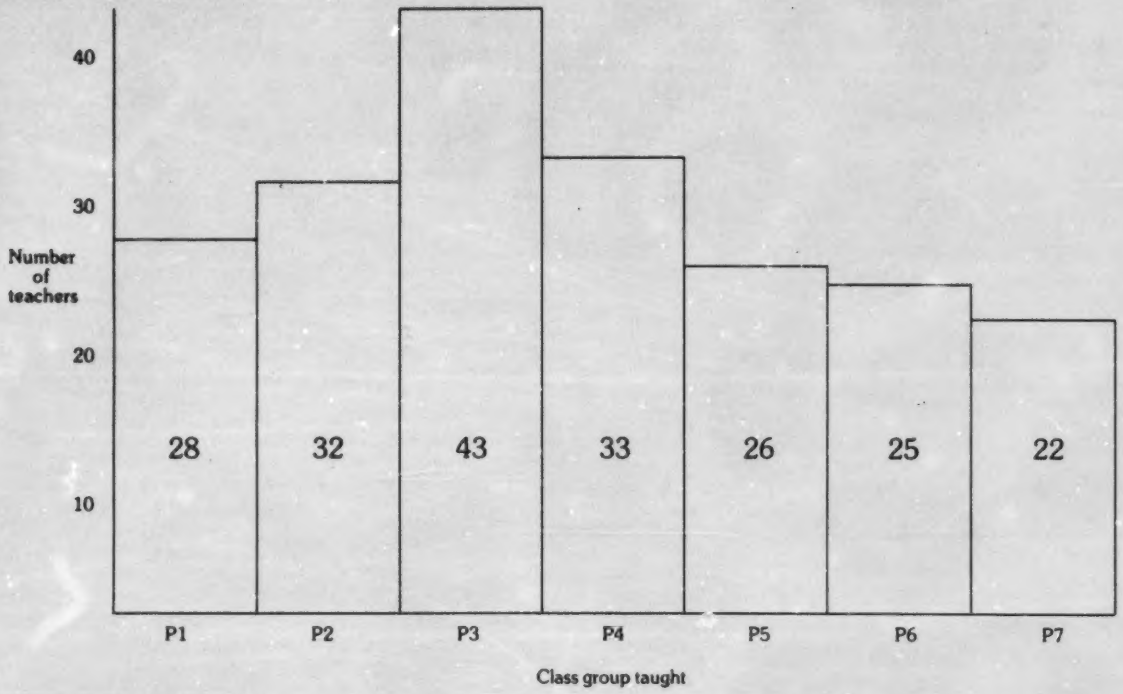
1. W.G. Cochran, F. Mosteller and F.W. Tukey, "Statistical Problems of the Kinsey Report". *Journal of the American Statistical Association*, 1953, pp. 673 — 716.
2. Basil Lewis, "Resource Centre at St Peter's C.E. Primary School, Tunbridge Wells" in Adam H. Malcolm, ed., *A Resources Centre is . . . a state of mind* (Glasgow: Scottish Educational Film Association, 1973), p.22
3. Hamilton & Tucker, *School Resources Centres in Scotland*.
4. *Ibid.*
5. J. Walton, "The initiation and development of a regional resources centre" in J. Walton and J. Ruck (eds.), *Resources and Resources Centres* (London: Ward Lock Educational, 1975), pp. 20–37.
6. R.W. Witkin, "Teachers' perception on their needs for resources" in Walton and Ruck (eds.), *Resources and Resources Centres*, pp. 73–95.

APPENDIX A: Members of the Resource Liaison Steering Group

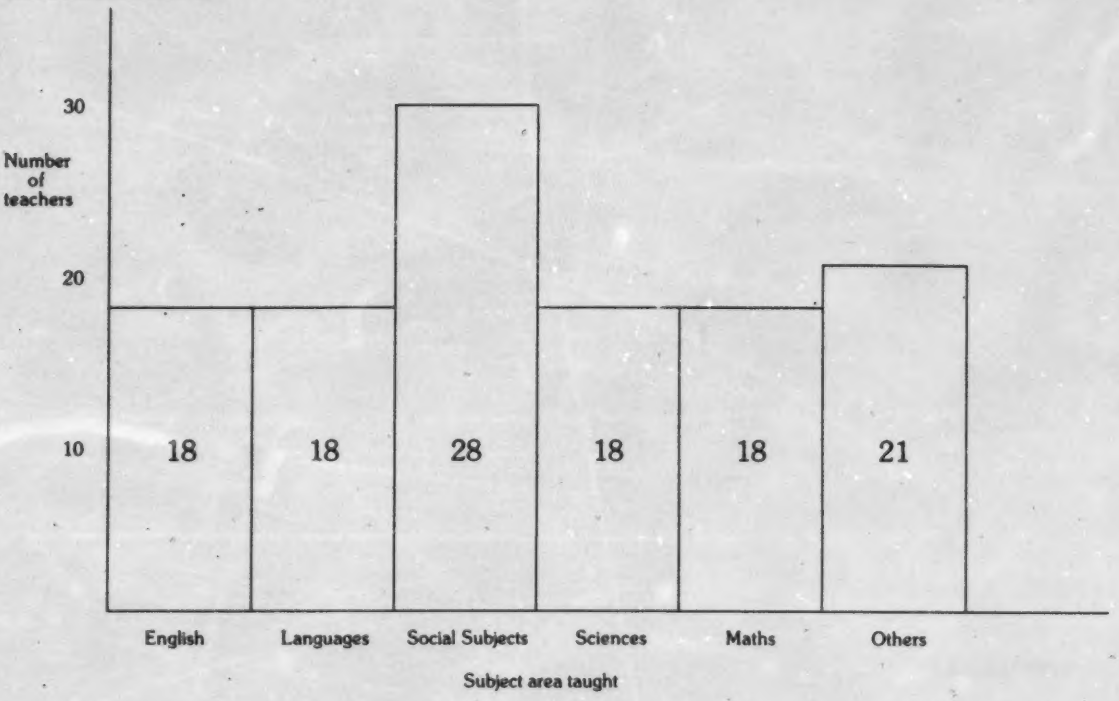
Mr J. S. Meldrum, (Chairman), former Director of Education, Stirlingshire.
Mr D. C. Butts, Head, Audio-Visual Media Department, Jordanhill College of Education, Glasgow.
Mr J. H. Embling, O.B.E., Council for Educational Technology (from July 1978).
Mr J. A. R. Hughes, Director, Scottish Curriculum Development Service, Dundee Centre, Dundee College of Education, Broughty Ferry.
Mr A. H. Malcolm, Head, Fife Educational Resources Centre, Kirkcaldy.
Mr A. Maltby, H. M. Inspector of Schools.
Mr D. Mennie, Resources Development Officer, Department of Education, Grampian Regional Council.
Mr R. N. Tucker, (Secretary), Senior Assistant Director, Scottish Council for Educational Technology.

APPENDIX B: Teacher details

Primary teachers



Secondary teachers



APPENDIX C: Interview Schedule

SCOTTISH COUNCIL FOR EDUCATIONAL TECHNOLOGY

NATIONAL SURVEY OF SCHOOL TEACHERS' USE OF CERTAIN NON-BOOK RESOURCES

Interview No._____

Date_____

Length of Interview_____

Sex of Teacher_____

Age of Teacher_____

Year School was built_____

SECTION ONE: Personal details

1. Are you a probationary teacher?

YES	1	
NO	2	

Questions 2-4 apply only to Secondary School teachers

2. What is your subject area?

English	1	
Languages	2	
Mathematics	3	
Science	4	
Social Subjects (specify).....	5	
.....		
Others (specify).....	6	
.....		

3. What subject(s) do you teach at present?

_____

_____

4. What is the number of teachers, including those in promoted posts, in your Department(s)?
(include both full-time equivalent PLUS number of teachers)

_____

_____

Go to Question 7

Questions 5 and 6 apply only to Primary School teachers

5. What age group(s) do you teach?

P1	P2	P3	P4	P5	P6	P7

6. How many other teachers are there in your school teaching the same age group(s) as the children you teach?
(i.e., someone else doing the same job)

_____

_____

7. How many hours per week do you spend teaching in the classroom?

_____

_____

8. How many hours per week, therefore, do you have in the school when you are not teaching?

_____

_____

9. How do you use your non-teaching time?

correcting work	1	
preparing your own work	2	
other activities (specify).....	3	
.....		

10. How many years have you worked as a certificated teacher? _____

11. Have you been a certificated teacher all your working life?

YES	1	
NO	2	

If 'YES' ask Question 13
If 'NO' ask Question 12

12. How many years have you worked in other occupations? *(include national service/war service/uncertificated teaching, etc. Note number of years in each type of occupation)*

_____

_____

13. Which University/College did you attend? *(note dates; and also where and when teacher training took place)*

_____

_____

14. How long have you been in teaching?

less than 1 year	1	
between 1 and 2 years	2	
between 2 and 5 years	3	
between 5 and 10 years	4	
above 10 years	5	

15. How long have you been teaching in this school?

less than 1 year	1	
between 1 and 2 years	2	
between 2 and 5 years	3	
between 5 and 10 years	4	
above 10 years	5	

SECTION TWO: Within the schools

I'd like to move on now and ask you about the use you make of the non-book resources which are available to you in your school.

16. Are any of the following pieces of equipment available to you in school?

		YES	NO	DON'T KNOW	AVAILABLE	EASILY AVAILABLE
cassette recorder	1					
tape recorder	2					
record player	3					
radio	4					
TV (B/W)	5					
TV (Colour)	6					
VCR/VTR	7					
slide projector	8					
cine projector	9					
OHP	10					
epidiascope	11					

17. Could you tell me, please, where the equipment is kept? *(find out if there's a central or departmental store; difficulties in borrowing; problems, e.g., maintenance)*

_____

_____

18. Which of the following non-book resources are held in your school and are available to you for use in your classroom?

		the school has this resource	ownership of resource	you don't know if the school has this resource	you use it almost every day	you use it once a week on average	you use it several times a term	you use it rarely	you never use it
audio-tapes/cassettes	1								
films	2								
filmstrips	3								
games	4								
models	5								
press cuttings	6								
radio programmes	7								
records	8								
slides	9								
slide-tape and filmstrip record combinations	10								
specimens	11								
teaching machine programmes	12								
transparencies	13								
TV programmes	14								
video tapes	15								
worksheets	16								

19. Where are the non-book resources owned by your school and which are available for your use held?

centrally (specify)	1
departmentally	2
by other individual teachers	3
by you	4
by someone else (specify).....	5
.....	

Ask Questions 20 and 21 only if there is a central collection

20. From whom did you learn that the school held its resources *centrally?*

your Headteacher	1
your Head of Department	2
the School Librarian	3
another member of the teaching staff	4
by finding out yourself	5
another source (specify).....	6
.....	

21. Could you tell me, please, how you borrow from this central collection? *(note difficulties; does the teacher always find what's required?; how quickly can the teacher get what's wanted?; is it catalogued?)*

_____

_____

Ask Questions 22 and 23 only if there is a departmental collection

22. From whom did you learn that the school held its resources *departmentally?*

your Headteacher	1	
your Head of Department	2	
the School Librarian	3	
another member of the teaching staff	4	
by finding out yourself	5	
another source (specify).....	6	
.....		

23. Could you tell me how you borrow from this departmental collection, please? *(note difficulties; does the teacher always find what's required?; how quickly can the teacher get what's wanted?; is it catalogued?)*

_____

_____

24. Is it possible for you to borrow resources from other colleagues?

YES	1	
NO	2	

If 'YES' ask Question 25, then Question 27
If 'NO' ask Question 26

25. Could you give me details, please?

_____

_____

26. Could you tell me why you don't borrow from colleagues?
(practical difficulties; lack of interest)

_____

_____

27. Do you believe you're fully aware of all the resources dealing with your teaching area which are held in the school?

YES	1	
NO	2	

If 'NO' ask Question 28
If 'YES' ask Question 29

28. Why do you think you're not fully aware? *(concentrate on the problems over gaining such details)*

_____

_____

29. Is there a network in your school by which you can find out what is available in terms of resources — given you don't know what exists or in what format?

YES	1	
NO	2	

If 'YES' ask Question 30
If 'NO' ask Question 31

30. Could you give me details, please?

_____

_____

31. In these circumstances, i.e., that you want to use resources in your teaching, but don't know what exists, what would you do?

_____

_____

Code:

not bother	1	
ask a colleague	2	
ask the School Librarian (if you have one)	3	
contact Area/Div./Regional R.C./T.C. (if you have one)	4	
contact a member of the EA Adviserate	5	
contact national CDC applicable	6	
contact SCET	7	
contact another source (specify).....	8	
.....		

32. Are the resources dealing with your subject area organised in the school in the way most convenient for your use of them? *(note reasons for views expressed)*

Code:

completely convenient	1	
convenient	2	
undecided	3	
inconvenient	4	
completely inconvenient	5	

SECTION THREE: Outwith the schools

I'd now like to ask you about resources centres outwith your own school.

33. Have you ever borrowed resources from other schools?

YES	1	
NO	2	

If 'YES' ask Question 34, then Question 36

If 'NO' ask Question 35

34. Could you give me details, please? *(note how teacher knew what was available in other school(s); also distance involved; and whether it's a practice common to school)*

35. Could I ask you why you haven't? *(note how close nearest school is; whether teacher has tried to do so; whether teacher has thought of it)*

36. Have you ever heard of any of the following places?

the Area/Div./Regional R.C./T.C. *(NAME IT)*	1	
the national CDC applicable to your subject *(NAME IT)*	2	
SCET	3	
SCFL	4	
'Index of Broadcast Resources' *(DISPLAY A COPY)*	5	

37. Have you yourself ever initiated contact with any of the following places or people to try to find information about and/or borrow resources?

your Regional R.C./T.C. (NAME IT)	1	
your Divisional R.C./T.C. (NAME IT)	2	
your Area R.C./T.C. (NAME IT)	3	
any member of the EA Adviserate	4	
the national CDC applicable to your subject (NAME IT)	5	
SCET (including SCFL)	6	
other contacts (specify)	7	

Details, if there's a positive reply. (note if teacher knows if there's a catalogue in the school)

_____

_____

38. Have any of the following places or people made contact with you in order to inform you of the resources available to you?

your Regional R.C./T.C. (NAME IT)	1	
your Divisional R.C./T.C. (NAME IT)	2	
your Area R.C./T.C. (NAME IT)	3	
any member of the EA Adviserate	4	
the national CDC applicable to your subject (NAME IT)	5	
SCET (including SCFL)	6	
other contacts (specify)	7	

Details, if there's a positive reply

_____

_____

39. Do you believe you know what the following bodies hold in terms of resources which might be of aid to you?

your Regional R.C./T.C. (NAME IT)	1	
your Divisional R.C./T.C. (NAME IT)	2	
your Area R.C./T.C. (NAME IT)	3	
the national CDC applicable to your subject (NAME IT)	4	
SCET (including SCFL)	5	

40. Could you rate the help given to you on the following five grade standard, please?

		Regional R.C./T.C.	Divisional R.C./T.C.	Area R.C./T.C.	CDC	SCFL	SCET
very efficient	1						
efficient	2						
satisfactory	3						
inefficient	4						
very inefficient	5						

41. Are there any other bodies/institutions outwith your own school and those already mentioned from which you borrow resources to use in your classroom?

YES	1	
NO	2	

If 'NO' ask Question 43
If 'YES' ask Question 42

42. Could you give me details, please?

_____

_____

SECTION FOUR: Ordering procedures in schools

43. While you have been at this school, have you ever asked for any resources to be bought?

YES	1	
NO	2	

If 'NO' ask Question 46
If 'YES' ask Question 44

44. Were the resources you requested bought?

YES	1	
NO	2	

If 'NO' ask Question 45
If 'YES' ask Question 46

45. What reasons were given for the failure to purchase?

YES	1	
NO	2	

46. Does your School/Dept meet as a group to decide what resources to order?

YES	1	
NO	2	

47. What procedure is adopted?

_____

_____

48. Who has the final say in the decision whether or not to order resources? *(note the criteria used, if known)*

_____

_____

49. Do resources play a big part in your teaching? *(probe for views on whether teacher considers he has enough resources readily at his disposal).*

50. What would you like to see happen to enable you to have easier knowledge of, and access to, resources?

SECTION FIVE: Training in audio-visual techniques

51. Did you receive during your teacher-training any training in the use of audio-visual equipment?

YES	1	
NO	2	

If 'NO' ask Question 53
If 'YES' ask Question 52

52. Do you think this training prepared you adequately for the classroom? *(note reasons for opinion)*

Coding:

completely inadequate	1	
inadequate	2	
satisfactory	3	
good	4	
very good	5	

53. Since starting teaching have you received any (further) training in the use of audio-visual equipment?

YES	1	
NO	2	

If 'NO' ask Question 55
If 'YES' ask Question 54

54. Could you give me details, please? *(note who organised, when they were held, and teacher's opinion)*

If answers to Question 51 and 53 have been 'NO' ask Question 55

55. Could you tell me, please, how you have learned to handle audio-visual equipment?

56. Do you feel quite confident using audio-visual equipment? *(probe to find out if the teacher does not use a-v material because of lack of expertise; note also if there is any auxiliary staff to assist with equipment, recordings)*

57. Are there any comments which you wish to make about what has been said in this interview and/or resources in general?

APPENDIX D. Tables

Table 1. Type of school by sex of teacher

	males	females	total
primary	11(15.3%)	89(69.5%)	100(50.0)%
secondary	61(84.7%)	39(30.5%)	100(50.0)%
total	72	128	200(100.0)%

Table 2. Type of school by region

	Part Strathclyde	Ed. Tech. area	non Ed. Tech. area	total
primary	34(46.6%)	40(51.9%)	26(52.0%)	100(50.0%)
secondary	39(53.4%)	37(48.1%)	24(48.0%)	100(50.0%)
total	73	77	50	200(100.0%)

Table 3. Type of school by experience of teacher

	Group One	Group Two	Group Three	total
primary	32(33.7%)	34(60.7%)	34(69.4%)	100(50.0%)
secondary	63(66.3%)	22(39.3%)	15(30.6%)	100(50.0%)
total	95	56	49	200(100.0%)

Table 4. Use of audio-visual software held within school by type of school

	not known if available		not available		used at least once a week		used several times a term		used rarely or never		total	
	P	S	P	S	P	S	P	S	P	S	P	S
audio cassettes or tapes	0	7	4	23	40(41.7%)	27(38.6%)	19(19.8%)	17(24.3%)	37(38.5%)	26(37.1%)	96	70
films	1	1	99	98	0(0.0%)	0(0.0%)	0(0.0%)	1(100.0%)	0(0.0%)	0(0.0%)	0	1
film strips	5	10	40	28	1(1.8%)	11(17.7%)	12(21.8%)	28(45.2%)	42(76.4%)	23(37.1%)	55	62
games	0	1	6	40	74(78.7%)	10(16.9%)	11(11.7%)	14(23.7%)	9(9.6%)	35(59.3%)	94	59
models	1	0	59	61	15(37.5%)	11(28.2%)	14(35.0%)	12(30.8%)	11(27.5%)	16(41.0%)	40	39
press cuttings	0	2	23	32	24(31.2%)	9(13.6%)	34(44.2%)	28(42.4%)	19(24.7%)	29(43.9%)	77	66
radio programmes ("live")	0	11	1	15	59(59.6%)	0(0.0%)	3(3.0%)	2(2.7%)	37(37.4%)	72(97.3%)	99	74
records	3	6	16	52	18(22.2%)	3(7.1%)	29(35.8%)	10(23.8%)	34(42.0%)	29(69.0%)	81	42
slides	12	3	61	37	(3.7%)	14(23.3%)	3(11.1%)	19(31.7%)	23(85.2%)	27(45.0%)	27	60
slide-tape or film strip-record combinations	5	6	84	53	0(0.0%)	8(19.5%)	0(0.0%)	12(29.3%)	11(100.0%)	21(51.2%)	11	41
specimen	1	1	95	85	2(50.0%)	3(21.4%)	1(25.0%)	7(50.0%)	1(25.0%)	4(28.6%)	4	14
teaching machine programmes	1	1	99	96	0(0.0%)	0(0.0%)	0(0.0%)	0(0.0%)	0(0.0%)	3(100.0%)	0	3
transparencies	6	1	83	25	1(9.1%)	28(37.8%)	0(0.0%)	9(12.2%)	10(90.9%)	37(50.0%)	11	74
TV programmes ("live")	0	0	0	5	91(91.0%)	5(5.3%)	3(3.0%)	2(2.1%)	6(6.0%)	88(92.6%)	100	95
video tapes	1	1	93	13	1(16.7%)	14(16.3%)	1(16.7%)	24(27.9%)	4(66.7%)	48(55.8%)	6	86
worksheets	0	0	7	10	66(71.0%)	68(75.6%)	16(17.2%)	15(16.7%)	11(11.8%)	7(7.8%)	93	90

*The percentage figures given in this table have been adjusted and do not include the "not known" and "not available" responses. Similarly, these responses are not included in the "total" category.

Table 5. Use of audio-visual software held in school by sex of teacher

	not known if available		not available		used at least once a week		used several times a term		used rarely or never		total	
	M	F	M	F	M	F	M	F	M	F	M	F
audio cassettes or tapes	4	3	17	10	19(37.3%)	48(41.7%)	12(23.5%)	24(20.9%)	20(39.2%)	43(37.4%)	51	115
films	2	0	69	128	0(0.0%)	0(0.0%)	1(100.0%)	0(0.0%)	0(0.0%)	0(0.0%)	1	0
film strips	4	11	20	48	8(16.7%)	4(5.8%)	20(41.7%)	20(29.0%)	20(41.7%)	45(65.2%)	48	69
games	1	0	29	17	10(23.8%)	74(66.7%)	9(21.4%)	16(14.4%)	23(54.8%)	21(18.9%)	42	111
models	0	1	39	81	10(30.3%)	16(34.8%)	10(30.3%)	16(34.8%)	13(39.4%)	14(30.4%)	33	46
press cuttings	1	1	27	28	7(15.9%)	26(26.3%)	14(31.8%)	48(48.5%)	23(52.3%)	25(25.3%)	44	99
radio programmes ("live")	8	3	11	5	5(9.4%)	54(45.0%)	3(5.7%)	2(1.7%)	45(84.9%)	64(53.3%)	53	120
records	2	7	39	29	2(6.5%)	19(20.7%)	9(29.0%)	30(32.6%)	20(64.5%)	43(46.7%)	31	92
slides	2	13	29	69	6(14.6%)	9(19.6%)	14(34.1%)	8(17.4%)	21(51.2%)	29(63.0%)	41	46
slide-tape or film strip-record combinations	2	9	44	93	1(3.8%)	7(26.9%)	9(34.6%)	3(11.5%)	16(61.5%)	16(61.5%)	26	26
specimen	0	2	59	121	1(7.7%)	4(80.0%)	7(53.8%)	1(20.0%)	5(38.5%)	0(0.0%)	13	5
teaching machine programmes	0	2	70	125	0(0.0%)	0(0.0%)	0(0.0%)	0(0.0%)	2(100.0%)	1(100.0%)	2	1
transparencies	0	7	28	80	18(40.9%)	11(26.8%)	8(18.2%)	1(2.4%)	18(40.9%)	29(70.7%)	44	41
TV programmes ("live")	0	0	5	0	11(16.4%)	85(66.4%)	2(3.0%)	3(2.3%)	54(80.6%)	40(31.2%)	67	128
video tapes	0	2	20	86	9(17.3%)	6(15.0%)	17(32.7%)	8(20.0%)	26(50.0%)	26(65.0%)	52	40
worksheets	0	0	9	8	47(74.6%)	87(72.5%)	10(15.9%)	21(17.5%)	6(9.5%)	12(10.0%)	63	120

*Percentage figures in this table have been adjusted and do not include the "not known if available" and "not available" categories. Similarly, these responses are not included in the "total" category.

Table 6. Incidence of use of games by type of school controlling for sex of teacher. Values refer to male teachers.

	primary	secondary	total
used at least once a week	5(62.5%)	5(14.7%)	10(23.8%)
used several times a term	3(37.5%)	6(17.6%)	9(21.4%)
used rarely or never	0(0.0%)	23(67.6%)	23(54.8%)
total	8	34	42(100.0%)
not applicable	3	27	30
base	11	61	72

*The percentage figures in this table have been adjusted and do not include the "not applicable category.
χ^2 is 12.82 and is significant beyond the level of 0.0016.

Table 7. Incidence of use of games by type of school controlling for sex of teacher. Values refer to female teachers.

	primary	secondary	total
used at least once a week	69(80.2%)	5(20.0%)	74(66.7%)
used several times a term	8(9.3%)	8(32.0%)	16(14.4%)
used rarely or never	9(10.5%)	12(48.0%)	21(18.9%)
total	86	25	111(100.0%)
not applicable	3	14	17
base	89	39	128

*The percentage figures have been adjusted and do not include the "not applicable" category.
χ^2 is 31.89 and is significant beyond the level of 0.0001.

Table 8. Incidence of use of press cuttings by type of school controlling for sex of teacher. Values refer to male teachers.

	primary	secondary	total
used at least once a week	3(37.5%)	4(11.1%)	7(15.9%)
used several times a term	3(37.5%)	11(30.6%)	14(31.8%)
used rarely or never	2(25.0%)	21(58.3%)	23(52.3%)
total	8	36	44(100.0%)
not applicable	3	25	28
base	11	61	72

*The percentage figures have been adjusted and do not include the "not applicable" category.

Table 9. Incidence of use of press cuttings by type of school controlling for sex of teacher. Values refer to female teachers.

	primary	secondary	total
used at least once a week	21(30.4%)	5(16.7%)	26(26.3%)
used several times a term	31(44.9%)	17(56.7%)	48(48.5%)
used rarely or never	17(24.6%)	8(26.7%)	25(25.3%)
total	69	30	99(100.0%)
not applicable	20	9	29
base	89	39	128

*The percentage figures have been adjusted and do not include the "not applicable" category.

Table 10. Perceived availability of certain items of audio-visual software by region

		Part Strathclyde	Ed. Tech. area	non Ed. Tech. area	total	missing observations
film strips	available	54(79.4%)	41(59.4%)	22(45.8%)	117(63.2%)	15
	not available	14(20.6%)	28(40.6%)	26(54.2%)	68(36.8%)	
slides	available	40(63.5%)	30(40.5%)	17(35.4%)	87(47.0%)	15
	not available	23(36.5%)	44(59.5%)	31(64.6%)	98(53.0%)	
slide-tape and film strip-record combinations	available	29(41.4%)	15(21.4%)	8(16.3%)	52(27.5%)	11
	not available	41(58.6%)	55(78.6%)	41(83.7%)	137(72.5%)	
transparencies	available	39(54.9%)	34(47.2%)	12(24.0%)	85(44.0%)	7
	not available	32(45.1%)	38(52.8%)	38(76.0%)	108(56.0%)	

*The percentages in this table have been adjusted and do not include the "missing observations" category.
The χ^2 figure for film strips is14.34 and is significant beyond the level of 0.0008.
The χ^2 figure for slides is 10.70 and is significant beyond the level of 0.0047.
The χ^2 figure for slide-tape and film strip-record combinations is 11.17 and is significant beyond the level of 0.0038.
The χ^2 figure for transparencies is 11.86 and is significant beyond the level of 0.0027.

Table 11. Use of worksheets by region

	Part Strathclyde	Ed. Tech. area	non Ed. Tech. area	total
used at least once a week	58(84.1%)	54(74.0%)	22(53.7%)	134(73.2%)
used several times a term	9(13.0%)	10(13.7%)	12(29.3%)	31(16.9%)
used rarely or never	2(2.9%)	9(12.3%)	7(17.1%)	18(9.8%)
total	69	73	41	183(100.0%)

*There are 17 missing observations.
The χ^2 figure is 14.03 and is significant beyond the level of 0.0072.

Table 12. Use of film strips by experience of teacher

	Group One	Group Two	Group Three	total
used at least once a week	8(14.5%)	3(7.9%)	1(4.2%)	12(10.3%)
used several times a term	25(45.5%)	13(34.2%)	2(8.3%)	40(34.2%)
used rarely or never	22(40.0%)	22(57.9%)	21(87.5%)	65(55.6%)
total	55	38	24	117(100.0%)

*There are 83 missing observations.
The χ^2 figure is15.64 and is significant beyond the level of 0.0035.

Table 13. Use of radio programmes ("live") by experience of teacher

	Group One	Group Two	Group Three	total
used at least once a week	16(21.3%)	19(36.5%)	24(52.2%)	59(34.1%)
used several times a term	2(2.7%)	1(1.9%)	2(4.3%)	5(2.9%)
used rarely or never	57(76.0%)	32(61.5%)	20(43.5%)	109(63.0%)
total	75	52	46	173(100.0%)

*There are 27 missing observations.
The χ^2 figure is 13.41 and is significant beyond the level of 0.0094.

Table 14. Use of transparencies by experience of teacher

	Group One	Group Two	Group Three	total
used at least once a week	24(44.4%)	2(9.1%)	3(33.3%)	29(34.1%)
used several times a term	8(14.8%)	1(4.5%)	0(0.0%)	9(10.6%)
used rarely or never	22(40.7%)	19(86.4%)	6(66.7%)	47(55.3%)
total	54	22	9	85(100.0%)

*There are 115 missing observations.
The χ^2 figure is 14.47 and is significant beyond the level of 0.0059.

Table 15. Use of television programmes ("live") by experience of teachers

	Group One	Group Two	Group Three	total
used at least once a week	31(33.7%)	33(60.0%)	32(66.7%)	96(49.2%)
used several times a term	2(2.2%)	1(1.8%)	2(4.2%)	5(2.6%)
used rarely or never	59(64.1%)	21(38.2%)	14(29.2%)	94(48.2%)
total	92	55	48	195(100.0%)

*There are 5 missing observations.
The χ^2 figure is 19.02 and is significant beyond the level of 0.0008.

Table 16. Use of worksheets by experience of teacher

	Group One	Group Two	Group Three	total
used at least once a week	69(79.3%)	37(69.8%)	28(65.1%)	134(73.2%)
used several times a term	11(12.6%)	14(26.4%)	6(14.0%)	31(16.9%)
used rarely or never	7(8.0%)	2(3.8%)	9(20.9%)	18(9.8%)
total	87	53	43	183(100.0%)

*There are 17 missing observations.
The χ^2 figure is 12.54 and is significant beyond the level of 0.0138.

Table 17. Incidence of central stores by type of school

	primary	secondary	total
central store	53(53.0%)	16(16.0%)	69(34.5%)
no central store	47(47.0%)	84(84.0%)	131(65.5%)
total	100	100	200(100.0%)

*The χ^2 figure is 28.68 and is significant beyond the level of 0.0001 which indicates a highly significant relationship.

Table 18. Notification of central store by type of school

teacher learned of central store's existence. . .	primary	secondary	total
from the Head Teacher	29(54.7%)	4(25.0%)	33(47.8%)
from the Head of the Department	3(5.7%)	5(31.2%)	8(11.6%)
from another teacher	4(7.5%)	3(18.7%)	7(10.1%)
by himself/herself	5(9.4%)	2(12.5%)	7(10.1%)
from another source	12(22.6%)	2(12.5%)	14(20.3%)
total	53	16	69(100.0%)
not applicable	47	84	131
base	100	100	200

*The percentage figures given in this table have been adjusted and do not include the "not applicable" category.

Table 19. Incidence of departmental stores by type of school

	primary	secondary	total
departmental store	9(9.0%)	69(69.0%)	78(39.0%)
no departmental stores	91(91.0%)	31(31.0%)	122(61.0%)
total	100	100	200(100.0%)

The χ^2 figure is 73.16 and is significant beyond the level of 0.0001.

Table 20. Notification of departmental store by type of school

teacher learned of departmental store's existence. . .	primary	secondary	total
from the Head Teacher	0(0.0%)	1(1.4%)	1(1.3%)
from the Head of the Department	3(33.3%)	50(72.5%)	53(67.9%)
from another teacher	2(22.2%)	2(2.9%)	4(5.1%)
by himself/herself	0(0.0%)	8(11.6%)	8(10.3%)
from another source	4(44.4%)	8(11.6%)	12(15.4%)
total	9	69	78(100.0%)
not applicable	91	31	122
base	100	100	200

*The percentage figures given in this table have been adjusted and do not include the "not applicable" responses.

Table 21. Instances of non-book resources held in other ways by type of school

	held by other teachers		held by teacher interviewed		held by someone else	
	primary	secondary	primary	secondary	primary	secondary
yes	36(36.0%)	35(35.0%)	82(82.0%)	62(62.0%)	4(4.0%)	1(1.0%)
no	64(64.0%)	65(65.0%)	18(18.0%)	38(38.0%)	96(96.0%)	99(99.0%)
total	100	100	100	100	100	100

Table 22. Incidence of central stores of non-book resources by region

	Part Strathclyde	Ed. Tech. area	non Ed. Tech. area	total
central store	29(39.7%)	29(37.7%)	11(22.0%)	69(34.5%)
no central store	44(60.3%)	48(62.3%)	39(78.0%)	131(65.5%)
total	73	77	50	200(100.0%)

*The χ^2 figure is 4.68 and is significant beyond the level of 0.0963.

Table 23. Incidence of departmental stores of non-book resources by region

	Part Strathclyde	Ed. Tech. area	non Ed. Tech. area	total
departmental store	35(47.9%)	33(42.9%)	10(20.0%)	78(39.0%)
no departmental store	38(52.1%)	44(57.1%)	40(80.0%)	122(61.0%)
total	73	77	50	200(100.0%)

*The χ^2 figure is 10.52 and is significant beyond the level of 0.0052.

Table 24. Perceived availability of audio-visual hardware by type of school

	not known if available		not available		available		easily available		base
	Primary	Secondary	Primary	Secondary	Primary	Secondary	Primary	Secondary	
cassette recorder	1(1.0%)	12(12.0%)	4(4.0%)	7(7.0%)	8(8.0%)	26(26.0%)	87(87.0%)	55(55.0%)	200(100.0%)
tape recorder	6(6.0%)	12(12.0%)	26(26.0%)	10(10.0%)	7(7.0%)	22(22.0%)	61(61.0%)	56(56.0%)	200(100.0%)
record player	2(2.0%)	8(8.0%)	8(8.0%)	7(7.0%)	8(8.0%)	42(42.0%)	82(82.0%)	43(43.0%)	200(100.0%)
radio	0(0.0%)	11(11.0%)	1(1.0%)	15(15.0%)	9(9.0%)	35.0%)	92(92.0%)	39(39.0%)	200(100.0%)
television (black and white)	2(2.0%)	13(13.0%)	34(34.0%)	27(27.0%)	11(11.0%)	31(31.0%)	53(53.0%)	29(29.0%)	200(100.0%)
television (colour)	0(0.0%)	14(14.0%)	38(38.0%)	20(20.0%)	10(10.0%)	28(28.0%)	52(52.0%)	38(38.0%)	200(100.0%)
video recorder	3(3.0%)	4(4.0%)	91(91.0%)	9(9.0%)	0(0.0%)	43(43.0%)	6(6.0%)	44(44.0%)	200(100.0%)
slide projector	4(4.0%)	3(3.0%)	9(9.0%)	5(5.0%)	10(10.0%)	23(23.0%)	77(77.0%)	69(69.0%)	200(100.0%)
cine projector	10(10.0%)	8(8.0%)	55(55.0%)	8(8.0%)	11(11.0%)	38(38.0%)	24(24.0%)	46(46.0%)	200(100.0%)
overhead projector	8(8.0%)	2(2.0%)	72(72.0%)	7(7.0%)	5(5.0%)	27(27.0%)	15(15.0%)	64(64.0%)	200(100.0%)
epidiascope	6(6.0%)	39(39.0%)	71(71.0%)	36(36.0%)	4(4.0%)	16(16.0%)	19(19.0%)	9(9.0%)	200(100.0%)

Table 25. Perceived availability of colour television by region

	Part Strathclyde	Ed. Tech. area	non Ed. Tech. area	total
not available	26(40.6%)	10(13.5%)	22(45.8%)	58(31.2%)
available	13(20.3%)	20(27.0%)	5(10.4%)	38(20.4%)
easily available	25(39.1%)	44(59.5%)	21(43.7%)	90(48.4%)
total	64	74	48	186(100.0%)

*14 respondents did not know if there was a colour television available.
The χ^2 figure is 19.71 and is significant at the level of 0.0006.

Table 26. Perceived availability of cine projector by region

	Part Strathclyde	Ed. Tech. area	non Ed. Tech. area	total
not available	15(22.7%)	25(36.8%)	23(47.9%)	63(34.6%)
available	28(42.4%)	13(19.1%)	8(16.7%)	49(26.9%)
easily available	23(34.8%)	30(44.1%)	17(35.4%)	70(38.5%)
total	66	68	48	182(100.0%)

*18 respondents did not know if there was a cine projector available.
The χ^2 figure is 15.45 and is significant beyond the level of 0.0039.

Table 27. Storage of hardware by type of school

	primary	secondary	total
central store	69/69.0%)	13(13.1%)	82(41.2%)
departmental stores	0(0.0%)	15(15.2%)	15(7.5%)
teachers' rooms	4(4.0%)	5(5.1%)	9(4.5%)
central and departmental stores	4(4.0%)	23(23.2%)	27(13.6%)
central store and teachers' rooms	13(13.0%)	5(5.1%)	18(9.0%)
departmental stores and teachers' rooms	0(0.0%)	9(9.1%)	9(4.5%)
central and departmental stores and teachers' rooms	10(10.0%)	29(29.3%)	39(19.6%)
total	100	99	99(100.0%)
not known	0	1	1
base	100	100	200

*The percentages shown in this table are all adjusted and do not include the "not known" response.

Table 28. Assistance with audio recordings by type of school

	primary	secondary	total
technician	1(1.0%)	49(55.7%)	50(26.9%)
another teacher	4(4.1%)	7(8.0%)	11(5.9%)
Head Teacher	3(3.1%)	0(0.0%)	3(1.6%)
auxiliary	27(27.6%)	6(6.8%)	33(17.7%)
Janitor	11(11.2%)	1(1.1%)	12(6.5%)
secretary	10(10.2%)	1(1.1%)	11(5.9%)
by the teacher interviewed	42(42.9%)	24(27.3%)	66(35.5%)
total	98	88	186(100.0%)
not known	2	11	13
not applicable	0	1	1
base	100	100	200

*The percentage figures in this table have been adjusted and do not include the "not known" and "not applicable" responses.

Table 29. Incidence of inter-borrowing by type of school

	primary	secondary	total
teachers able to borrow	87(91.6%)	96(96.0%)	183(93.8%)
teachers ***not*** able to borrow	8(8.4%)	4(4.0%)	12(6.2%)
total	95	100	195(100.0%)
not applicable	5	0	5
base	100	100	200

*The percentage figures given in this table have been adjusted and do not include the "not applicable" responses which refer to the five interviews in single-teacher schools.

Table 30. Incidence of resource awareness by type of school

	primary	secondary	total
teachers who claimed to be fully aware	81(81.0%)	67(67.0%)	148(74.0%)
teachers who claimed *not* to be fully aware	19(19.0%)	33(33.0%)	52(26.0%)
total	100	100	200(100.0%)

*The χ^2 figure for this table is 4.39 and is significant beyond the 0.04 level.

Table 31. Incidence of resource awareness by region

	Part Strathclyde	Ed. Tech. area	non Ed. Tech. area	total
teachers who claimed to be fully aware	52(71.2%)	51(66.2%)	45(90.0%)	148(74.0%)
teachers who claimed *not* to be fully aware	21(28.8%)	26(33.8%)	5(10.0%)	52(26.0%)
total	73	77	50	200(100.0%)

*The χ^2 figure is 9.36 and is significant beyond the level of 0.0093.

Table 32. Incidence of resource awareness by experience of teacher

	Group One	Group Two	Group Three	total
teachers who claimed to be fully aware	58(61.1%)	48(85.7%)	42(85.7%)	148(74.0%)
teachers who claimed *not* to be fully aware	37(38.9%)	8(14.3%)	7(14.3%)	52(26.0%)
total	95	56	49	200(100.0%)

*The χ^2 figure is 15.77 and is significant beyond the level of 0.0004.

Table 33. Reasons for lack of resource awareness by type of school

	primary	secondary	total
no list of resources (1)	1(5.3%)	4(12.1%)	5(9.6%)
other teachers seen using resources (2)	4(21.1%)	0(0.0%)	4(7.7%)
other reasons (3)	2(10.5%)	7(21.2%)	9(17.3%)
(1) and (2)	11(57.9%)	14(42.6%)	25(48.1%)
(1) and (3)	1(5.3%)	0(0.0%)	1(1.9%)
(2) and (3)	0(0.0%)	1(3.0%)	1(1.9%)
(1) and (2) and (3)	0(0.0%)	7(21.2%)	7(13.5%)
total	19	33	52(100.0%)
not applicable	81	67	148
base	100	100	200

*The percentage figures in this table have been adjusted and do not include the "not applicable" responses.

Table 34. Incidence of information networks by type of school

	primary	secondary	total
schools with information networks	4(4.2%)	5(5.0%)	9(4.6%)
schools ***without*** information networks	91(95.8%)	95(95.0%)	186(95.4%)
total	95	100	195(100.0%)
not applicable	5	0	5
base	100	100	200

*The percentage figures have been adjusted so as not to include the "not applicable" category
The "not applicable" responses refer to the five teachers who were in single-teacher schools.

Table 35. Sources of resource information by type of school

	mentioned by		not mentioned by		total		don't know		base
	primary	secondary	primary	secondary	primary	secondary	primary	secondary	
"not bother"	4(4.0%)	2(2.0%)	96(96.0%)	96(98.0%)	100	98	0	2	200
colleague(s)	64(64.0%)	77(78.6%)	36(36.0%)	21(21.4%)	100	98	0	2	200
school librarian	2(2.0%)	14(14.3%)	98(98.0%)	84(85.7%)	100	98	0	2	200
local RC/TC	44(44.0%)	42(42.9%)	56(56.0%)	56(57.1%)	100	98	0	2	200
EA Adviserate	37(37.0%)	28(28.6%)	63(63.0%)	70(71.4%)	100	98	0	2	200
CDC	0(0.0%)	7(7.1%)	100(100.0%)	91(92.9%)	100	98	0	2	200
SCET	1(1.0%)	2(2.0%)	99(99.0%)	96(98.0%)	100	98	0	2	200
colleges of education	18(18.0%)	8(8.2%)	82(82.0%)	90(91.8%)	100	98	0	2	200
commercial catalogues	52(52.0%)	34(34.7%)	48(48.0%)	64(65.3%)	100	98	0	2	200
other organisations, groups	26(26.0%)	20(20.4%)	74(74.0%)	78(79.6%)	100	98	0	2	200

*The percentage figures have been adjusted and do not include the "don't know" responses.

Table 36. Sources of resource information by region

	mentioned by			not mentioned by			total
	Part Strathclyde	Ed. Tech. area	non Ed. Tech. area	Part Strathclyde	Ed. Tech. area	non Ed. Tech. area	
colleague(s)	53(73.6%)	62(81.6%)	26(52.0%)	19(26.4%)	14(18.4%)	24(48.0%)	198
local RC/TC	39(54.2%)	41(53.9%)	6(12.0%)	33(45.8%)	35(46.1%)	44(88.0%)	198
SCET	0(0.0%)	0(0.0%)	3(6.0%)	72(100.0%)	76(100.0%)	47(94.0%)	198
colleges of education	15(20.8%)	9(11.8%)	2(4.0%)	57(79.2%)	67(88.2%)	48(96.0%)	198
commercial catalogues	22(30.6%)	27(35.5%)	37(74.0%)	50(69.4%)	49(64.5%)	13(26.0%)	198
other organisations, groups	17(23.6%)	24(31.6%)	5(10.0%)	55(76.4%)	52(68.4%)	45(90.0%)	198

*There are 2 missing observations.
The X^2 figure for colleagues is 13.19 and is significant beyond the level of 0.0014.
The X^2 figure for local RC/TC is 26.9 and is significant beyond the level of 0.0001.
The X^2 figure for SCET is 9.01 and is significant beyond the level of 0.0110.
The X^2 figure for colleges of education is 7.51 and is significant beyond the level of 0.0234.
The X^2 figure for commercial catalogues is 25.81 and is significant beyond the level of 0.0001.
The X^2 figure for other organisations etc. is 7.88 and is significant beyond the level of 0.0194.

Table 37. Some sources of resource information by experience of teacher

	mentioned by			not mentioned by			not known	total
	Group One	Group Two	Group Three	Group One	Group Two	Group Three		
colleague(s)	75(79.8%)	37(67.3%)	29(59.2%)	19(20.2%)	18(32.7%)	20(40.8%)	2	200
local RC/TC	38(40.4%)	32(58.2%)	16(32.7%)	56(59.6%)	23(41.8%)	33(67.3%)	2	200
colleges of education	15(16.0%)	10(18.2%)	1(2.0%)	79(84.0%)	45(81.8%)	48(98.0%)	2	200
commercial catalogues	41(43.6%)	17(30.9%)	28(57.1%)	53(56.4%)	38(69.1%)	21(42.9%)	2	200

*The percentage figures have been adjusted and do not include the "not known" responses.
The X^2 figure for colleague(s) is 7.25 and is significant beyond the level of 0.0267.
The X^2 figure for a local RC/TC is 7.53 and is significant beyond the level of 0.0231.
The X^2 figure for colleges of education is 7.17 and is significant beyond the level of 0.0277.
The X^2 figure for commercial catalogues is 7.26 and is significant beyond the level of 0.0265.

Table 38. Teachers' opinions of resource organisation by type of school

	primary	secondary	total
completely convenient	63(63.0%)	44(44.0%)	107(53.5%)
convenient	22(22.0%)	31(31.0%)	53(26.5%)
undecided	2(2.0%)	2(2.0%)	4(2.0%)
inconvenient	7(7.0%)	17(17.0%)	24(12.0%)
completely inconvenient	6(6.0%)	6(6.0%)	12(6.0%)
total	100	100	200(100.0%)

Table 39. Incidence of inter-school borrowing by type of school

	primary	secondary	total
teachers who have borrowed	26(26.0%)	28(28.0%)	54(27.0%)
teachers who have *not* borrowed	74(74.0%)	72(72.0%)	146(73.0%)
total	100	100	200(100.0%)

Table 40. Examples of inter-school borrowing by type of school

	primary	secondary	total
personal contact	7(26.9%)	7(25.0%)	14(25.9%)
nearby school	2(7.7%)	5(17.9%)	7(13.0%)
far-off school	5(19.2%)	3(10.7%)	8(14.8%)
personal contact and nearby school	6(23.1%)	8(28.6%)	14(25.9%)
personal contact and far-off school	3(11.5%)	4(14.3%)	7(13.0%)
other examples	3(11.5%)	1(3.6%)	4(7.4%)
total	26	28	54(100.0%)
not applicable	74	72	146
base	100	100	200

*The percentage figures in this table have been adjusted and do not include "not applicable" responses.

Table 41. Reasons for not borrowing from other schools by type of school

	mentioned by		not mentioned by		not applicable		total
	primary	secondary	primary	secondary	primary	secondary	
"never thought of it"	43(58.1%)	40(55.6%)	31(41.9%)	32(44.4%)	26	28	200
"no idea what's there"	14(18.9%)	9(12.5%)	60(81.1%)	63(87.5%)	26	28	200
"don't consider it should be done"	5(6.8%)	1(1.4%)	69(93.2%)	71(98.6%)	26	28	200
"didn't know it was allowed"	23(31.8%)	27(37.5%)	51(68.9%)	45(62.5%)	26	28	200
"no school nearby"	30(40.5%)	31(43.1%)	44(59.5%)	41(56.9%)	26	28	200
"no need for it"	26(35.1%)	28(38.9%)	48(64.9%)	44(61.1%)	26	28	200
other reasons	2(2.7%)	0(0.0%)	72(97.3%)	72(100.0%)	26	28	200

*The percentage figures in this table have been adjusted and do not include "not applicable" responses.

Table 42. Reasons for not borrowing from other schools by region

	mentioned by			not mentioned by			total
	Part Strathclyde	Ed. Tech. area	non Ed. Tech. area	Part Strathclyde	Ed. Tech. area	non Ed. Tech. area	
"never thought of it" (1)	28(51.9%)	26(45.6%)	29(82.9%)	26(48.1%)	31(54.4%)	6(17.1%)	146
"didn't know it was allowed" (2)	9(16.7%)	23(40.4%)	18(51.4%)	45(83.3%)	34(59.6%)	17(48.6%)	146
"no school nearby" (3)	10(18.5%)	20(35.1%)	31(88.6%)	44(81.5%)	37(64.9%)	4(11.4%)	146

*There are 54 missing observations.
The X^2 figure for (1) is 13.13 and is significant beyond the level of 0.0014.
The X^2 figure for (2) is 12.94 and is significant beyond the level of 0.0015.
The X^2 figure for (3) is 44.57 and is significant beyond the level of 0.0001.

Table 43. Teachers' awareness of existence of central resources services by type of school

	yes		no		not applicable		total
	primary	secondary	primary	secondary	primary	secondary	
the local RC/TC	82(93.2%)	78(90.7%)	6(6.8%)	8(9.3%)	12	14	200
CDC	–	63(69.2%)	–	28(30.8%)	100	9	200
SCET	24(24.0%)	29(29.0%)	76(76.0%)	71(71.0%)	0	0	200
SCFL	79(79.0%)	76(76.0%)	21(21.0%)	24(24.0%)	0	0	200
"Index of Broadcasting Resources"	11(11.0%)	8(8.0%)	89(89.0%)	92(92.0%)	0	0	200

*The percentage figures in this table have been adjusted, where necessary, in order not to include "not applicable" responses.

Table 44. Teachers initiating contact with central resources services by type of school

	yes		no		not applicable		total
	primary	secondary	primary	secondary	primary	secondary	
regional RC/TC	24(49.0%)	20(46.5%)	25(51.0%)	23(53.5%)	51	57	200
divisional RC/TC	32(54.2%)	24(47.1%)	27(45.8%)	27(52.9%)	41	49	200
area RC/TC	2(16.7%)	3(42.9%)	10(83.3%)	4(57.1%)	88	93	200
EA Adviserate	45(45.0%)	27(28.1%)	55(55.0%)	69(71.9%)	0	4	200
CDC	–	17(18.7%)	–	74(81.3%)	100	9	200
SCET/SCFL	12(12.0%)	19(19.0%)	88(88.0%)	81(81.0%)	0	0	200
SLS	17(17.7%)	3(3.1%)	79(82.3%)	93(96.9%)	4	4	200
colleges of education and other places	8(8.0%)	5(5.0%)	92(92.0%)	95(95.0%)	0	0	200

*The percentage figures in this table have been adjusted and do not include the "not applicable" responses.

Table 45. Teachers contacted by central resources services by type of school

	yes		no		not applicable		total
	primary	secondary	primary	secondary	primary	secondary	
regional RC/TC	31(63.3%)	23(53.5%)	18(36.7%)	20(46.5%)	51	57	200
divisional RC/TC	29(49.2%)	15(29.4%)	30(30.8%)	36(70.6%)	41	49	200
local RC/TC	2(16.7%)	1(14.3%)	10(83.3%)	6(85.7%)	88	93	200
EA Adviserate	49(49.0%)	41(42.7%)	51(51.0%)	55(57.3%)	0	4	200
CDC	–	22(24.2%)	–	69(75.8%)	100	9	200
SCET/SCFL	21(21.0%)	18(18.0%)	79(79.0%)	82(82.0%)	0	0	200
SLS	20(20.8%)	0(0.0%)	76(79.2%)	96(100.0%)	4	4	200
colleges of education and other places	2(2.0%)	2(2.0%)	98(98.0%)	98(98.0%)	0	0	200

*The percentage figures in this table have been adjusted and do not include the "not applicable" responses.

Table 46. Teachers contacted by certain of the central resources services by region

	yes			no			not applicable	total
	Part Strathclyde	Ed. Tech. area	non Ed. Tech. area	Part Strathclyde	Ed. Tech. area	non Ed. Tech. area		
EA Adviserate	22(30.1%)	43(56.6%)	25(53.2%)	51(69.9%)	33(43.4%)	22(46.8%)	4	200
CDCs	5(14.7%)	7(20.0%)	10(45.5%)	29(85.3%)	28(80.0%)	12(54.5%)	109	200
SCET/SCFL	6(8.2%)	21(27.3%)	12(24.0%)	67(91.8%)	56(72.7%)	38(76.0%)	0	200

*The percentage figures have been adjusted and do not include the "not applicable" responses.
The X^2 figure for the EA Adviserate is 11.80 and is significant beyond the level of 0.0027.
The X^2 figure for the CDC is 7.43 and is significant beyond the level of 0.0244.
The X^2 figure for the SCET/SCFL is 9.53 and is significant beyond the level of 0.0085.

Table 47. Teachers' knowledge of resources held by central resources services by type of school

	yes		no		not applicable		total
	primary	secondary	primary	secondary	primary	secondary	
regional RC/TC	21(42.9%)	16(37.2%)	28(57.1%)	27(62.8%)	51	57	200
divisional RC/TC	26(44.1%)	19(37.3%)	33(56.9%)	32(62.7%)	41	49	200
area RC/TC	2(16.7%)	3(42.9%)	10(83.3%)	4(57.1%)	88	93	200
CDC	–	7(7.7%)	–	84(92.3%)	100	9	200
SCET/SCFL	11(11.0%)	23(23.0%)	89(89.0%)	77(77.0%)	0	0	200

*The percentage figures in this table have been adjusted and do not include the "not applicable" responses.

Table 48. Central resources services by teachers' opinions of their efficiency

	very efficient	efficient	satisfactory	inefficient	very inefficient	not applicable	total
regional RC/TC	20(42.6%)	13(27.7%)	11(23.4%)	2(4.3%)	1(2.1%)	153	200
divisional RC/TC	30(58.8%)	15(29.4%)	6(11.8%)	0(0.0%)	0(0.0%)	149	200
area RC/TC	1(20.0%)	1(20.0%)	2(40.0%)	1(20.0%)	0(0.0%)	195	200
CDC	7(43.7%)	4(25.0%)	4(25.0%)	1(6.2%)	0(0.0%)	184	200
SCFL	10(41.7%)	8(33.3%)	5(20.8%)	1(4.2%)	0(0.0%)	176	200
SCET	1(50.0%)	1(50.0%)	0(0.0%)	0(0.0%)	0(0.0%)	198	200

*The percentage figures have been adjusted to exclude the "not applicable" category.

Table 49. Incidence of borrowing from additional places by type of school

	primary	secondary	total
teachers who have borrowed	67(67.0%)	40(40.0%)	107(53.5%)
teachers who have *not* borrowed	33(33.0%)	60(60.0%)	93(46.5%)
total	100	100	200(100.0%)

*The χ^2 figure for this table is 13.59 and is significant beyond the 0.0002 level.

Table 50. Incidence of borrowing from additional plates by sex of teacher

	male	female	total
teachers who have borrowed	29(40.3%)	78(60.9%)	107(53.5%)
teachers who have *not* borrowed	43(59.7%)	50(39.1%)	93(46.5%)
total	72	128	200(100.0%)

*The χ^2 figure for this table is 7.1 and is significant beyond the level of 0.008.

Table 51. Incidence of borrowing from additional places by type of teacher controlling for sex of teacher. Values refer to male teachers.

	primary	secondary	total
teachers who have borrowed	8(72.7%)	21(34.4%)	29(40.3%)
teachers who have *not* borrowed	3(27.3%)	40(65.6%)	43(59.7%)
total	11	61	72(100.0%)

*The χ^2 figure for this table is 4.2 and is significant beyond the level of 0.04.

Table 52. Incidence of borrowing from additional places by type of teacher controlling for sex of teacher. Values refer to female teachers.

	primary	secondary	total
teachers who have borrowed	59(66.3%)	19(48.7%)	78(60.9%)
teachers who have *not* borrowed	30(33.7%)	20(51.3%)	50(39.1%)
total	89	39	128(100.0%)

*The χ^2 figure for this table is 2.82 and is significant beyond the level of 0.0932.

Table 53. Additional resource sources by type of school

	yes		no		not applicable		total
	primary	secondary	primary	secondary	primary	secondary	
colleges of education	21(31.3%)	7(17.5%)	46(68.7%)	33(82.5%)	33	60	200
museums	8(11.9%)	3(7.5%)	59(88.1%)	37(92.5%)	33	60	200
national organisations	17(25.4%)	13(32.5%)	50(74.6%)	27(67.5%)	33	60	200
commercial firms	15(22.4%)	13(32.5%)	52(77.6%)	27(67.5%)	33	60	200
other places	44(65.7%)	19(47.5%)	23(34.3%)	21(52.5%)	33	60	200

*The percentage figures have been adjusted and do not include the "not applicable" responses.

Table 54. Incidence of requests for purchases of resources by type of school

	primary	secondary	total
teachers who have made requests	85(85.0%)	71(71.0%)	156(78.0%)
teachers who have *not* made requests	15(15.0%)	29(29.0%)	44(22.0%)
total	100	100	200(100.0%)

*The χ^2 figure for this table is 4.92 and is significant beyond the 0.027 level.

Table 55. Replies to requests for resources' purchase by type of school

	primary	secondary	total
yes	68(80.0%)	52(73.2%)	120(76.9%)
no	6(7.1%)	4(5.6%)	10(6.4%)
yes and no	11(12.9%)	13(18.4%)	24(15.4%)
no reply	0(0.0%)	2(2.8%)	2(1.3%)
total	85	71	156(100.0%)
not applicable	15	29	44
base	100	100	200

*The percentage figures have been adjusted and do not include the "not applicable" responses.

Table 56. Reasons given for non-purchase of resources by type of school

	yes		no		not applicable		total
	primary	secondary	primary	secondary	primary	secondary	
lack of money	12(70.6%)	15(78.9%)	5(29.4%)	4(21.4%)	83	81	200
request considered unsuitable	1(5.9%)	2(10.5%)	16(94.1%)	17(89.5%)	83	81	200
no reasons given	2(11.8%)	3(15.8%)	15(88.2%)	16(84.2%)	83	81	200
other responses	1(5.9%)	1(5.3%)	16(94.1%)	18(94.7%)	83	81	200
no clear responses	1(5.9%)	1(5.3%)	16(94.1%)	18(94.7%)	83	81	200

*The percentage figures in this table have been adjusted and do not include the "not applicable" responses.

Table 57. Incidence of staff meetings about purchase of resources by type of school

	primary	secondary	total
metings	55(58.5%)	59(61.5%)	114(60.0%)
no meetings	39(41.5%)	37(38.5%)	76(40.0%)
total	94	96	190(100.0%)
not applicable/known	6	4	10
base	100	100	200

*The percentage figures for this table have been adjusted so as not to include the "not applicable" responses.

Table 58. Methods used by schools in deciding on resource purchases by type of school

	primary	secondary	total
formal vote at staff meetings	1(1.1%)	1(1.1%)	2(1.1%)
concensus reached at staff meetings	35(37.2%)	24(25.5%)	59(31.4%)
PT/HT used veto	25(26.6%)	23(24.5%)	48(24.5%)
PH/HT made decision	33(35.1%)	46(48.9%)	79(42.0%)
total	94	94	188(100.0%)
not known	1	6	7
not applicable	5	0	5
base	100	100	200

*The percentage figures have been adjusted so as to exclude the "not known" categories.

Table 59. Teachers' opinions of resource provision in schools by type of school

	primary	secondary	total
enough resources	42(42.0%)	31(31.3%)	73(36.7%)
not enough resources	58(58.0%)	68(68.7%)	126(63.3%)
total	100	99	199(100.0%)
no clear response	0	1	1
base	100	100	200

*The percentage figures in this table have been adjusted so as not to include the "no clear response" category.

Table 60. Incidence of teachers expressing desire for changes to improve knowledge of and access to resources available by type of school

	primary	secondary	total
teachers wishing changes	90(90.0%)	88(88.0%)	178(89.0%)
teachers *not* wishing changes	10(10.0%)	12(12.0%)	22(11.0%)
total	100	100	200(100.0%)

Table 61. Details of changes desired by type of school

	yes		no		not applicable		total
	primary	secondary	primary	secondary	primary	secondary	
catalogues to be sent to teachers	61(67.8%)	57(64.8%)	29(32.2%)	31(35.2%)	10	12	200
school visits from RC/TC staff	32(35.6%)	21(23.9%)	58(64.4%)	67(76.1%)	10	12	200
in-service days at school	19(21.1%)	17(19.3%)	71(78.9%)	71(80.7%)	10	12	200
national information centre	42(46.7%)	42(47.7%)	48(53.3%)	46(52.3%)	10	12	200
local RC/TC	15(16.7%)	13(14.8%)	75(83.3%)	75(85.2%)	10	12	200
other suggestions	31(34.4%)	31(35.2%)	59(65.6%)	57(64.8%)	10	12	200

*The percentage figures have been adjusted and do not include the "not applicable" responses.

Table 62. Incidence of training in use of audio-visual equipment during teacher training by type of school

	primary	secondary	total
yes	71(71.0%)	70(70.0%)	141(70.5%)
no	29(29.0%)	30(30.0%)	59(29.5%)
total	100	100	200(100.0%)

Table 63. Incidence of training in use of audio-visual equipment during teacher training by experience of teacher

	Group One	Group Two	Group Three	total
yes	80(84.2%)	47(83.9%)	14(28.6%)	141(70.5%)
no	15(15.8%)	9(16.1%)	35(71.4%)	59(29.5%)
total	95	56	49	200(100.0%)

*The X^2 figure is 54.86 and is significant beyond the level of 0.0001.

Table 64. Teachers' opinions of audio-visual training at college by type of school

	primary	secondary	total
very good	3(4.2%)	3(4.3%)	6(4.3%)
good	6(8.5%)	4(5.7%)	10(7.1%)
satisfactory	21(29.6%)	19(27.1%)	40(28.4%)
inadequate	25(35.2%)	28(40.0%)	53(37.6%)
very inadequate	16(22.5%)	16(22.9%)	32(22.7%)
total	71	70	141(100.0%)
not applicable	29	30	59
base	100	100	200

*The percentage figures in this table have been adjusted and do not include the "not applicable" responses.

Table 65. Teachers' comments on audio-visual training at college by type of school

	yes		no		not applicable		total
	primary	secondary	primary	secondary	primary	secondary	
"little opportunity for operating the equipment"	46(64.8%)	50(71.4%)	25(35.2%)	20(28.6%)	29	30	200
"equipment at college was different from that in schools"	14(19.7%)	15(21.4%)	57(80.3%)	55(78.6%)	29	30	200
"there was not enough time at the audio-visual sessions"	46(64.8%)	48(68.6%)	25(35.2%)	22(31.4%)	29	30	200
"the use of the equipment was not related to the purpose of its use"	6(8.5%)	7(10.0%)	65(91.5%)	63(90.0%)	29	30	200
"we didn't get training in all types of audio-visual machinery"	32(45.1%)	45(64.3%)	39(54.9%)	25(35.7%)	29	30	200
"the audio-visual sessions were not regarded as important"	19(26.8%)	30(42.9%)	52(73.2%)	40(57.1%)	29	30	200
"we were operating the equipment under ideal conditions"	10(14.1%)	7(10.0%)	61(85.9%)	63(90.0%)	29	30	200
"I didn't appreciate how important it was"	22(31.0%)	25(35.7%)	49(69.0%)	45(64.3%)	29	30	200
other comments	9(12.7%)	8(11.4%)	62(87.3%)	62(88.6%)	29	30	200
no clear response	2(2.8%)	0(0.0%)	69(97.2%)	70(100.0%)	29	30	200

*The percentage figures in this table have been adjusted and do not include the "not applicable" responses.

Table 66. Some opinions of teachers of audio-visual training at college by experience of teacher

	yes			no			not applicable	total
	Group One	Group Two	Group Three	Group One	Group Two	Group Three		
"little opportunity for operating the equipment" (1)	62(77.5%)	29(61.7%)	5(35.7%)	18(22.5%)	18(38.3%)	9(64.3%)	59	200
"there was not enough time at the audio-visual sessions" (2)	61(76.2%)	28(59.6%)	5(35.7%)	19(23.7%)	19(40.4%)	9(64.3%)	59	200

*The percentage figures have been adjusted and do not include the "not applicable" category.
The χ^2 figure for (1) is 10.9 and is significant beyond the level of 0.0043.
The χ^2 figure for (2) is 10.41 and is significant beyond the level of 0.00055.

Table 67. Incidence of further training in the use of audio-visual equipment by type of school

	primary	secondary	total
yes	18(18.0%)	18(18.0%)	36(18.0%)
no	82(82.0%)	82(82.0%)	164(82.0%)
total	100	100	200(100.0%)

Table 68. Incidence of further training in the use of audio-visual equipment by experience of teacher

	Group One	Group Two	Group Three	total
yes	14(14.7%)	16(28.6%)	6(12.2%)	36(18.0%)
no	81(85.3%)	40(70.4%)	43(87.8%)	164(82.0%)
total	95	56	49	200(100.0%)

*The χ^2 figure is 6.02 and is significant beyond the level of 0.0492.

Table 69. Ways by which teachers without formal training had learned to handle audio-visual equipment by type of school

	primary	secondary	total
teacher has *not* learned	11(39.3%)	6(25.0%)	17(32.7%)
other teacher(s) helped	4(14.3%)	6(25.0%)	10(19.2%)
PT/HT	1(3.6%)	0(0.0%)	1(1.9%)
Janitor demonstrated	1(3.6%)	0(0.0%)	1(1.9%)
teacher learned without assistance	11(39.3%)	12(50.0%)	23(44.2%)
total	28	24	52(100.0%)
not applicable	72	76	148
base	100	100	200

*The percentage figures in this table have been adjusted and do not include the "not applicable" responses.

Table 70. Confidence of teachers using audio-visual equipment in general *by type of school*

	primary	secondary	total
teachers who are confident	53(53.0%)	72(72.0%)	125(62.5%)
teachers who are *not* confident	47(47.0%)	28(28.0%)	75(37.5%)
total	100	100	200(100.0%)

*The X^2 figure is 6.92 and is significant beyond the level of 0.0086.

Table 71. Confidence of teachers using audio-visual equipment in general *by sex of teacher*

	male	female	total
teachers who are confident	60(83.3%)	65(50.8%)	125(62.5%)
teachers who are *not* confident	12(16.7%)	63(49.2%)	75(37.5%)
total	72	128	200(100.0%)

*The X^2 figure is 19.47 and is significant beyond the level of 0.0001.

Table 72. Confidence of teachers using audio-visual equipment in general by experience of teacher

	Group One	Group Two	Group Three	total
teachers who are confident	66(69.5%)	35(62.5%)	24(49.0%)	125(62.5%)
teachers who are *not* confident	29(30.5%)	21(37.5%)	25(51.0%)	75(37.5%)
total	95	56	49	200(100.0%)

*The X^2 figure is 5.8 and is significant beyond the level of 0.0552.

Table 73. Confidence of teachers using all types *of audio-visual equipment by type of school*

	primary	secondary	total
teachers who are confident	17(17.0%)	28(28.0%)	45(22.5%)
teachers who are *not* confident	83(83.0%)	72(72.0%)	155(77.5%)
total	100	100	200(100.0%)

Table 74. Confidence of teachers using all types *of audio-visual equipment by sex of teacher*

	male	female	total
teachers who are confident	30(41.7%)	15(11.7%)	45(22.5%)
teachers who are *not* confident	42(58.3%)	113(88.3%)	155(77.5%)
total	72	128	200(100.0%)

*The X^2 figure is 22.01 and is significant beyond the level of 0.0001.

Table 75. Lack of use of audio-visual equipment because of lack of confidence by type of school

	primary	secondary	total
yes	79(79.0%)	58(58.6%)	137(68.8%)
no	21(21.0%)	41(41.4%)	62(31.2%)
total	100	99	199(100.0%)

*There was one missing observation.
The X^2 figure is 8.74 and is significant beyond the level of 0.0031

Table 76. Lack of use of audio-visual equipment because of lack of confidence by sex of teacher

	male	female	total
yes	32(45.1%)	105(82.0%)	137(68.8%)
no	39(54.9%)	23(18.0%)	62(31.2%)
total	71	128	199(100.0%)

*There was one missing observation.
The X^2 figure is 27.39 and is significant beyond the level of 0.0001.

APPENDIX E: Teachers' Comments During Interviews

Most of the comments made by teachers have been incorporated into the body of the Report. However, it is worth recording some statements which touched nerves, shocked, brought smiles and generally made the whole exercise memorable for reasons that should become obvious.

Some teachers were openly amazed that their views were being canvassed:

"I didn't realise that 'you' spoke to ordinary teachers. I thought it was just the promoted staff that 'you' were interested in."

"I've been teaching here for the past 20 years almost and you're the first person from outside to come and ask me what I think."

Another opinion expressed was whether the whole project, indeed educational research, was of any value:

"Does anything ever come of these things? I mean, you see all these reports and books and articles and everyone talks but does anyone **do** *anything as a result? The people who take the decisions — whoever they are — do you think you influence them at all?"*

"Look, it must have cost the taxpayer a bomb sending you up here" — it was the far north-west of the country — *"you say you've been up for ten days. That'll have cost two hundred quid. Right? At least. Right? You'll go away back to Glasgow, sit down write a few hundred words, forget about us and that'll be the end of it for you. Two hundred quid, man! I could have got blackout curtains, a Carousel, goodness knows what with that money. You'd have been better giving me the cash for all the good you'll do. That's what you should have done."*

"My dear boy, you are being terribly naive if you think the SED really bothers about what we think."

Fear of betrayal of confidences imparted was common:

"You won't quote what I've said, will you? not my name or school? You did promise."

"Listen, you've said you're going to see the Head now" — this at the end of the interview — *"you won't repeat anything? He's got my future in his hands, that old bastard, y'know . . . You never get him in here in the summer. He's away on the golf course."*

And, of course, the stories abound:

"We did get a stereo record player. Over £300, someone said. The Head took it home with him after a week. No one's seen it since. You won't tell?"

"I'm sorry I'll have to end this interview. There's a cow roaming the playground."

"Regionalisation's ruined everything. The rabbits. The playground's full of them. They weren't there before regionalisation."

"We've only one pupil at this school. Last winter, when the snows came and he couldn't get here, I 'phoned down his lessons for almost two months."

"I didn't want to try anything even vaguely academic. So I came into teaching."

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